EAGLE TUGS

Parts and Service Manual

Vehicle Types: TT-4, TT-5, TT-6, & TT-8

Engine Type: Isuzu Diesel 4JB1 & 4JG1 Engine Models

QA026 REV03 01.27.12

INTRODUCTION

From everyone at Eagle Tugs, we would like to say Thank You for purchasing an Eagle TT-series tow tractor. We take a lot of pride in the quality of the products that we build, as well as our continued customer service. Our goal is to build a long term relationship with our customers. We want you, the customer, to be 100% satisfied with your Eagle experience. To us, this means that your Eagle TT-series tractor is functionally superior to any other products you have used. This also means that your Eagle product is continually supported in a professional, timely manner.

PURPOSE & USE OF THIS MANUAL

This manual is designed as a reference guide to make the reader more familiar with the components of the Eagle TT-4, TT-5, TT-6, and TT-8 tow tractor models. This manual includes part numbers and descriptions to assist the reader in ordering component spare/service parts. The manual also outlines the Scheduled Maintenance Intervals recommended by Eagle in order to keep your vehicle running properly. In this manual you will also find the Eagle Standard Warranty on all of the TT-series tow tractors. However, for more detailed information on the Eagle Warranty and procedure, as well as information pertaining to the safe operation of your Eagle product, please see the Eagle Operations Manual that was also included with your vehicle.

TECHNICAL ASSISTANCE

When addressing a repair procedure or operational problem, please remember that Eagle technical support is only a phone call away. Eagle technicians are available to assist you in vehicle diagnostics and recommended repair procedures. We encourage you to use this service to reduce machine down-time and to gain a better understanding of proper repair procedures.

ORDERING SPARE/SERVICE PARTS

Eagle inventories most of the component parts found in its TT-series tow tractors, and most spare/service parts can be shipped the same day the order is received. Parts orders need to be received at Eagle by 12:00 pm (Noon) EST in order for the parts to be shipped that same day. Parts ordered after 12:00 pm EST will most likely be shipped the following day.

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WARRANTY

VEHICLE ID INFORMATION

This information can be found on the tractor's I.D. Plate located on the firewall next to the driver's seat. Additionally, there is a permanent serial number located on the rear bulkhead inside the engine compartment.

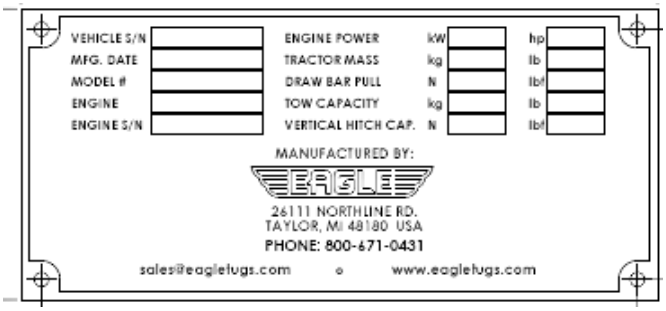
MODEL _____

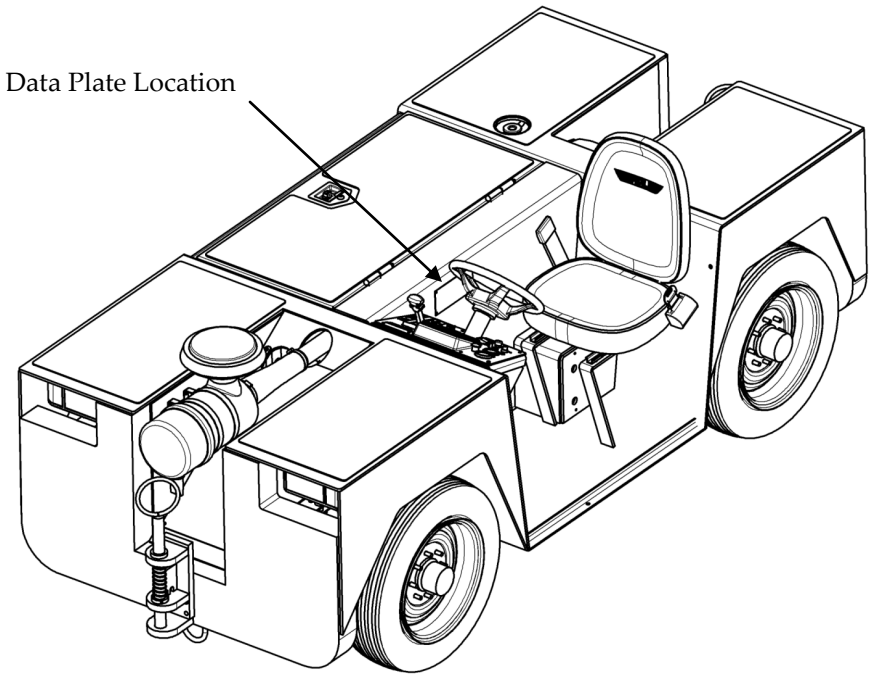
SERIAL NO _____

MFG DATE _____

ENGINE TYPE _____

ENGINE SERIAL NO _____





WARRANTY

Standard Limited Warranty Information*

The Eagle Tugs (EAGLE) Standard Warranty covers all MTT, RTT-series and Transit Pro tow tractors, as well as all Eagle tow tractor models used in industrial applications. Eagle Tugs warrants that these tractors will be free from defects in material and workmanship for a period of 1 year or 2,000 operating hours, with the exception of the electrical system (see electrical component warranty below), from date of delivery to the first customer (or first use), whichever comes first. Written notice of any claimed defect must be given to Eagle within the warranty period and within thirty (30) days after such defect is discovered. Liability under this warranty is limited to either replacing or repairing, at Eagle's election, any part or parts deemed defective after examination by Eagle or an Authorized Service Representative. Any Eagle tractor or any of its parts returned by the customer to Eagle or an Authorized Service Representative via prepaid transportation, and which is found to be defective, will be repaired or replaced and returned to the customer prepaid. On the other hand, should a part be found not defective, inspection and handling charges may be charged to the customer or Authorized Service Representative by Eagle.

Electrical Component Warranty: Electrical components including but not limited to display, starters, alternators and electric fans shall be covered under the respective original manufacturers warranty for each individual component. Copies of the respective warranties are available upon request.

This warranty does not extend to the tires, batteries, and battery chargers as these are warranted directly to the user by their respective manufacturer and not by Eagle or an Authorized Service Representative.

This warranty does not apply to any Eagle tow tractor, or component part(s) that have been subjected to misuse, accident, vandalism, environmental conditions, improper handling or application, maintenance neglect, including lack of lubricants or fluids; nor does it extend to the Eagle tow tractor and/or parts which have been repaired or altered outside of Eagle's plant or the facility of an Authorized Service Representative without the permission of Eagle.

This warranty does not apply to routine maintenance or wearable parts of the Eagle tow tractor such as filters, seals, plugs, hoses, belts, brake pads or shoes, light bulbs, fuses or similar items. Moreover, this warranty does not extend beyond its original term for any Eagle tow tractor or part replaced or repaired under warranty.

This warranty does not cover or provide credit for the following: tractor rental or other substitute equipment; lodging; loss of time, income, sales or profits; loss of the use of tractor; telephone calls or communication expense; lift truck; storage fees; injury or death to persons or damage or destruction of property; or consequential, incidental or punitive damages.

Labor Allowance: A labor allowance may be issued upon request at Eagle's discretion. Allowable labor hours and a per hour labor rate will be determined by Eagle according to reasonable automotive standards.

Warranty Claim Procedure: When a warranty situation arises, it is essential that the customer contact Eagle's Warranty Department at +1 734-442-1000. The customer will need to provide Eagle with the tow tractor serial number and engine hours. A customer service representative will analyze the problem and determine the next steps. In many cases Eagle's technical support personnel will be able to analyze the problem and recommend adjustments that will solve the problem and reduce down time. If further service is required, an Eagle customer service representative will work with customer personnel to arrange a service provider and/or parts be sent to your facility for the repair as quickly as possible.

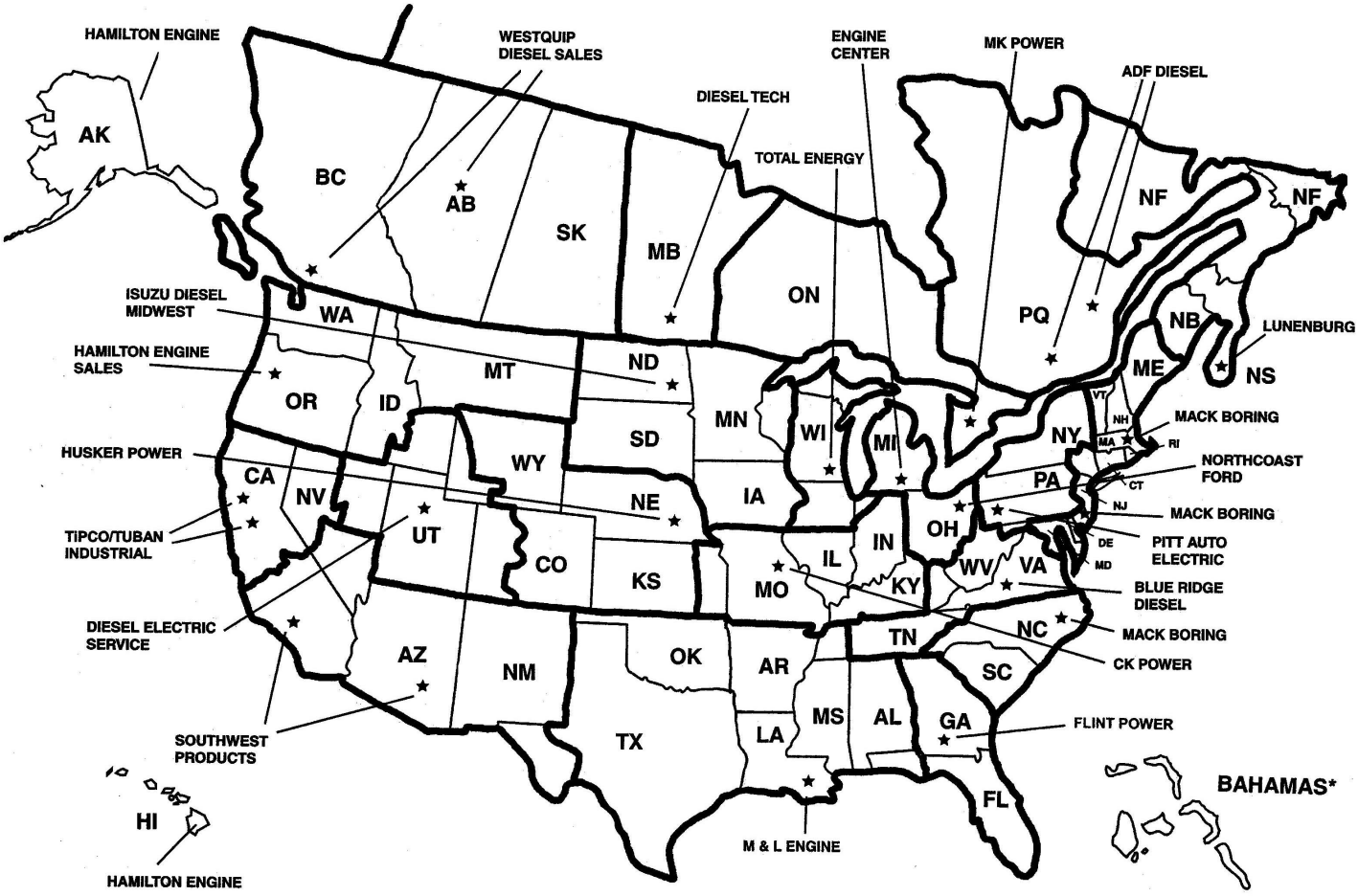
EXCEPT AS SET FORTH ABOVE, ALL WARRANTIES, CONDITIONS, REPRESENTATIONS, INDEMNITIES AND GUARANTEES, EXPRESS OR IMPLIED, WHETHER ARISING BY STATUTE, CUSTOM OF TRADE OR UNDER ORAL OR WRITTEN STATEMENTS MADE BY OR ON BEHALF OF EAGLE NEGOTIATIONS WITH CUSTOMER, DISTRIBUTOR, DEALER OR ANY REPRESENTATIVE, ARE HEREBY OVERWRITTEN AND EXCLUDED, AND NO LIABILITY SHALL ATTACH TO EAGLE, EITHER IN CONTRACT OR IN TORT, OR STRICT LIABILITY IN TORT, FOR ANY DAMAGE TO PROPERTY, LOSS OF PROFITS, DAMAGES, COSTS, CHARGES, LIABILITY OR EXPENSES, WHETHER DIRECT OR INDIRECT, CONSEQUENTIAL OR OTHERWISE, WHICH ARISE OUT OF OR IN CONNECTION WITH THE SALE OR USE OF ANY EAGLE MACHINE OR THE SUPPLY OF SERVICES.

SUBJECT TO CHANGE WITHOUT NOTICE

Please check our website www.eagletugs.com periodically for service bulletins and manual updates.

*Note - The Eagle Tugs **3-Year Warranty** covers TT-series, eTT-series, XL-series, eXL-series and USATS tow tractors which are used in aviation applications. All MTT and RTT-series, and Transit Pro models, as well as all Eagle tow tractor models which are used in industrial applications, are covered under the Eagle Standard Warranty of 1 Year or 2,000 hours. Eagle Bob Tails are covered under Ford Motor Company's Standard Warranty for each respective Ford truck model.

Authorized Isuzu Distributor Map



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SERVICE & PARTS BULLETIN

SVS-21-07
8/9/2007

TO: ALL DISTRIBUTOR & DEALER SERVICE PERSONNEL

SUBJECT: J-SERIES ENGINE OIL FILL PROCEDURES

BACKGROUND INFORMATION

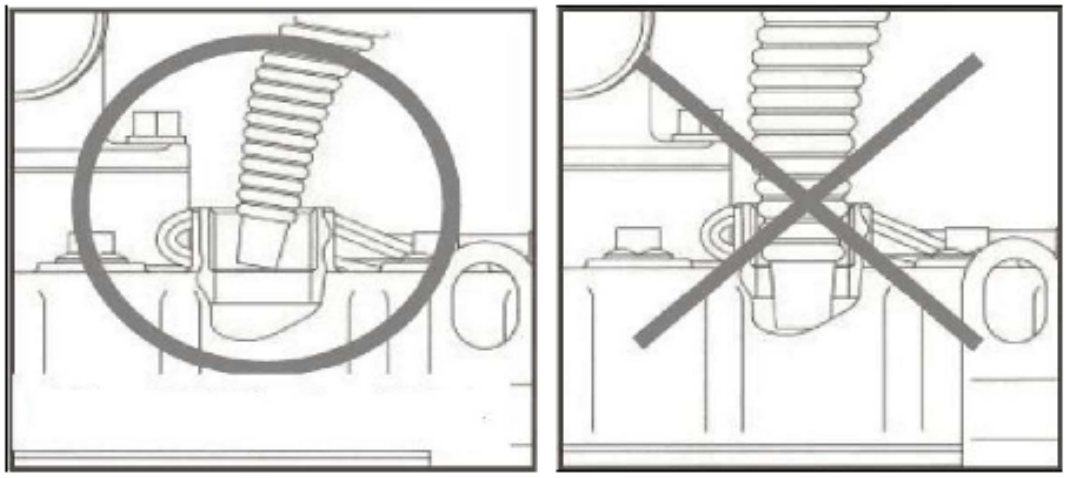
Improper engine oil fill rate and crankcase venting while filling may allow oil to enter the crank case ventilation system, intake manifold and combustion chamber, which may cause engine damage at startup.

ACTION REQUIRED

Follow the Oil Fill Procedure provided below, or refer to the appropriate engine Instruction Manual to prevent this non warrantable failure mode.

OIL FILL PROCEDURE

1. Before adding engine oil, remove the engine oil dipstick to provide crankcase ventilation.



2. Use an engine oil fill device that is smaller than the oil fill hole so that air is allowed to pass along the side of the oil fill hole.
3. Add engine oil slowly, at a rate that does not flood the valve cover. Be very careful when using automatic oil fill pumps; adjust to a slow rate if possible.
4. When changing the engine oil, add the exact amount specified in the manual.
5. Allow 10-20 minutes for the oil to drain into the oil pan. Confirm this by checking the oil level with the dip stick (repeatedly) until it stabilizes.

ISUZU DIESEL

SERVICE & PARTS BULLETIN

6. Check if the oil level is low, accounting for the oil filter oil capacity.
7. If the oil is low, oil may have entered the Closed Crankcase Ventilation (CCV) system and into the intake manifold and cylinder. If so, the oil must be removed before cranking the engine.

PROCEDURE FOR EVACUATING OIL FROM THE CCV SYSTEM

1. If oil entered the CCV system, it may be found in the intake manifold. Remove the intake manifold for verification.
2. Oil that has entered the CCV system can be removed from the cylinders by removing all fuel injection nozzles and turning the engine with the starter until all oil is exhausted from the cylinders.

If you should have any questions please contact your service and parts representative.

Best Regards,

The **ISZAPT** *Service & Parts Team*

WARNING – DO NOT USE JET A FUEL IN THIS ENGINE. ANY USE OF JET A FUEL WILL VOID THE WARRANTY ON THE ENGINE AND WILL RESULT IN VIOLATION OF EPA EMISSIONS REGULATIONS

NOTES:

SERVICE PARTS ILLUSTRATIONS & DETAIL

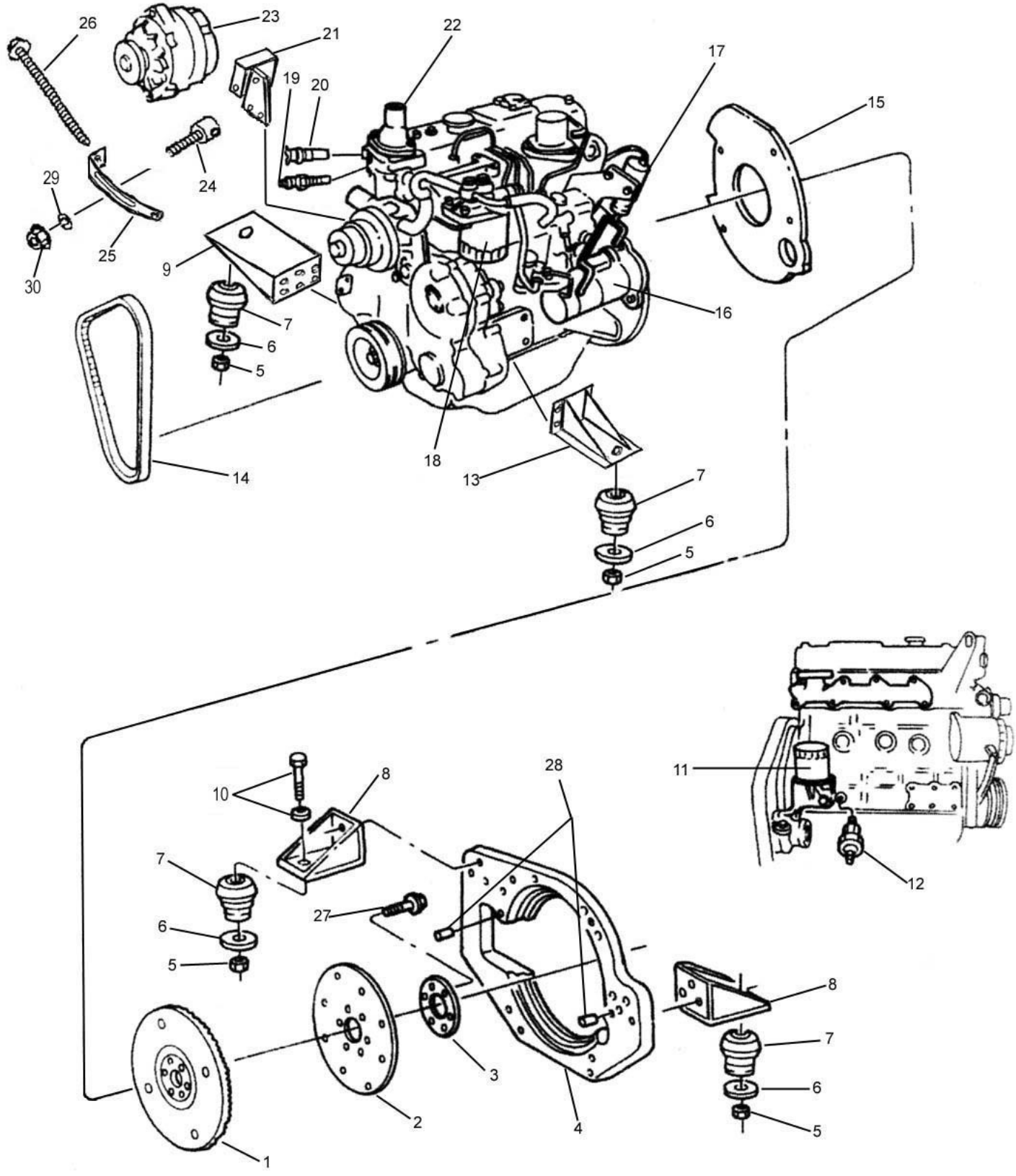
IDENTIFICATION KEY

The following abbreviations are used throughout the parts lists in this section.

Abbreviation	Meaning	Purpose
NL	Not Listed	Part required but not shown on diagram
NPN	No Part Number	Parts shown and numbered, but not stocked and sold by Eagle. Typically used for bolts, clamps, etc…
AR	As required	

POWER TRAIN

ENGINE DRESS—ISUZU DIESEL



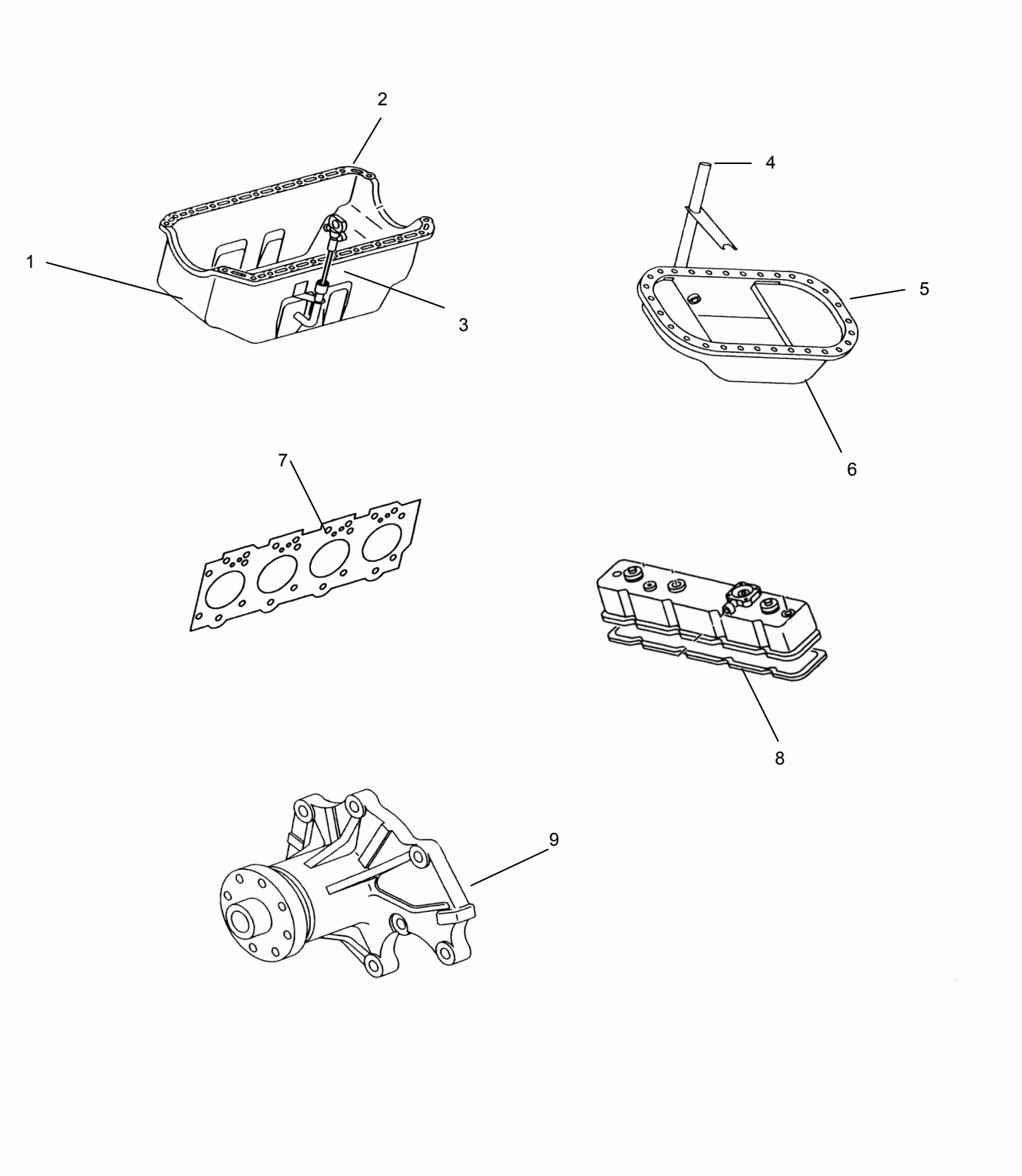
POWER TRAIN

ENGINE DRESS—ISUZU DIESEL—DETAIL

3	TM27C00305-ID	1	FLEX PLATE WASHER
4	B-TT10TD-00001-ID	1	TRANS PLATE
5	NPN	4	3/4 LOCK NUT
6	A-TT5D-00010	4	LORD WASHER
7	A-TT5D-00013-1	4	ISOLATOR
8	B-TT5D-00009	2	ENGINE MOUNT - TRANS PLATE
9	B-TT5D-00008	1	ENGINE MOUNT LEFT SIDE
10	NPN	4	3/4-16X3.5 BOLT & 3/4 WASHER
11	8-94430-983-1	1	OIL FILTER ELEMENT
12	A-TT4-00651	1	OIL PRESSURE SENDING UNIT
13	8971138000	1	ISUZU MOTOR MOUNT
14	1136714360	1	BELT
15	TMD27B00521-ID	1	ENGINE PLATE
16	8970848770	1	STARTER
17	X143301540	1	SOLENOID (REQ ON 4JB1 ENG ONLY)
18	8-94414-796-3	1	FUEL FILTER ELEMENT (4JBI ENGINE)
18A	897213-4720	1	FUEL FILTER ELEMENT (4JGI ENGINE)
19	A-TT4-00652	1	COOLANT TEMP SENDING UNIT
20	A-TT4-00653-1	1	FAN SWITCH
21	A-TT4-00143E	1	ALTERNATOR BRACKET
22	897217-8270	1	THERMOSTAT HOUSING STRIGHT
22	897207-2321	1	THERMOSTAT HOUSING 90 DEG (NOT SHOWN)
NL	8970908790	1	THERMOSTAT HOUSING GASKET
23	8970784710	1	ALTERNATOR
24	89709662281	1	SLIDING ADJUSTMENT BOLT
25	8971842640	1	ALTERNATOR ADJUSTING BRACKET
26	8943881780	1	BOLT, ALT
27	13MM-ID	8	M-13 BOLTS
28	5240849	2	DOWEL PINS
29	1099851770	1	LOCK WASHER, ALT
30	9091105080	1	NUT, ALT
NL	8943825460	1	THERMOSTAT (4JB1 ENGINE)
NL	894365-6741	1	THERMOSTAT GASKET (4JB1 ENGINE)
NL	8972112090	1	THERMOSTAT (4JGI ENGINE)
NL	8943656742	1	THERMOSTAT GASKET (4JGI ENGINE)

POWER TRAIN

ENGINE DRESS—ISUZU DIESEL



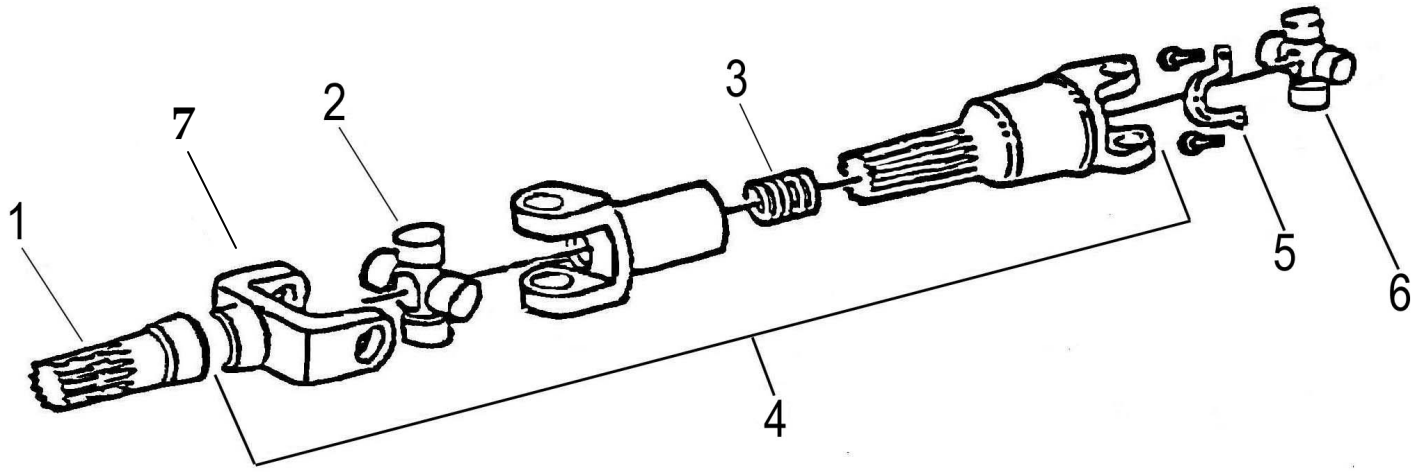
POWER TRAIN

ENGINE DRESS—ISUZU DIESEL—DETAIL

Item	Part Number	Qty	Description
1	8972539850	1	OIL PAN (4JG1 ENGINE)
2	8970801940	1	OIL PAN GASKET(4JG1 ENGINE)
3	8970479310	1	DIP STICK (4JG1 ENGINE)
4	8970479310	1	DIP STICK (4JB1 ENGINE)
5	8970453220	1	OIL PAN GASKET(4JB1 ENGINE)
6	8971738660	1	OIL PAN (4JB1 ENGINE)
7	8970661980	1	CYLINER HEAD GASKET (4JG1 ENGINE)
7	8943323270	1	CYLINER HEAD GASKET (4JB1 ENGINE)
8	8973494160	1	HEAD COVER GASKET (4JG1 ENGINE)
8	8971187680	1	HEAD COVER GASKET (4JB1 ENGINE)
9	8971050123	1	WATER PUMP (4JG1 ENGINE)
9	8970285901	1	WATER PUMP (4JB1 ENGINE)
10	5878136190	1	GASKET SET ENGINE OVERHAUL(4JB1)
11	5878133946	1	GASKET SET ENG HEAD OVERHAUL(4JB1)
12	5878142701	1	GASKET SET ENGINE OVERHAUL(4JG1)

DRIVELINE

DRIVE SHAFT ASSEMBLY—FRONT

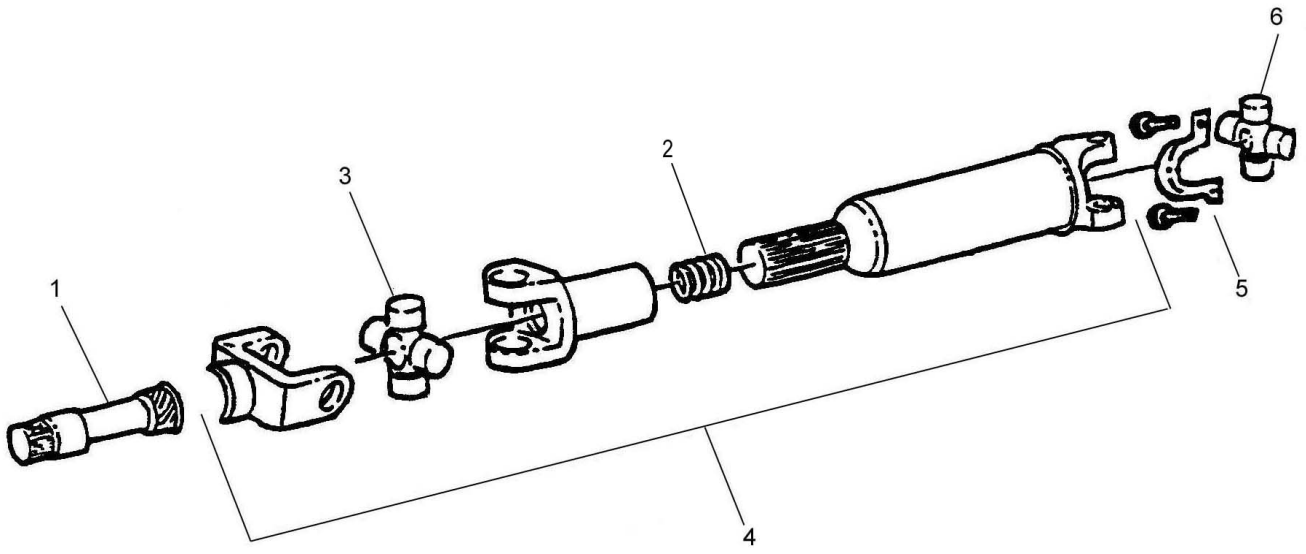


DRIVE SHAFT ASSEMBLY— FRONT DETAIL

ITEM	PART NUMBER	QTY.	DESCRIPTION
1	A-TT8-00201-1	1	TRANSMISSION OUTPUT YOKE SHAFT-FRONT
2	A-TT4-00132-1	1	CROSS BEARING FRONT D/S NEW STYLE
3	A-TT4-00134	1	DRIVE SHAFT SPRING
4	A-TT8-00202-4	1	DRIVE SHAFT
5	A-TT4-00130	2	END YOKE STRAP AND BOLT KIT
6	A-TT4-00137-1	1	CROSS BEARING FRONT D/S NEW STYLE
7	2-4-1921	1	END YOKE

DRIVELINE

DRIVESHAFT ASSEMBLY—REAR

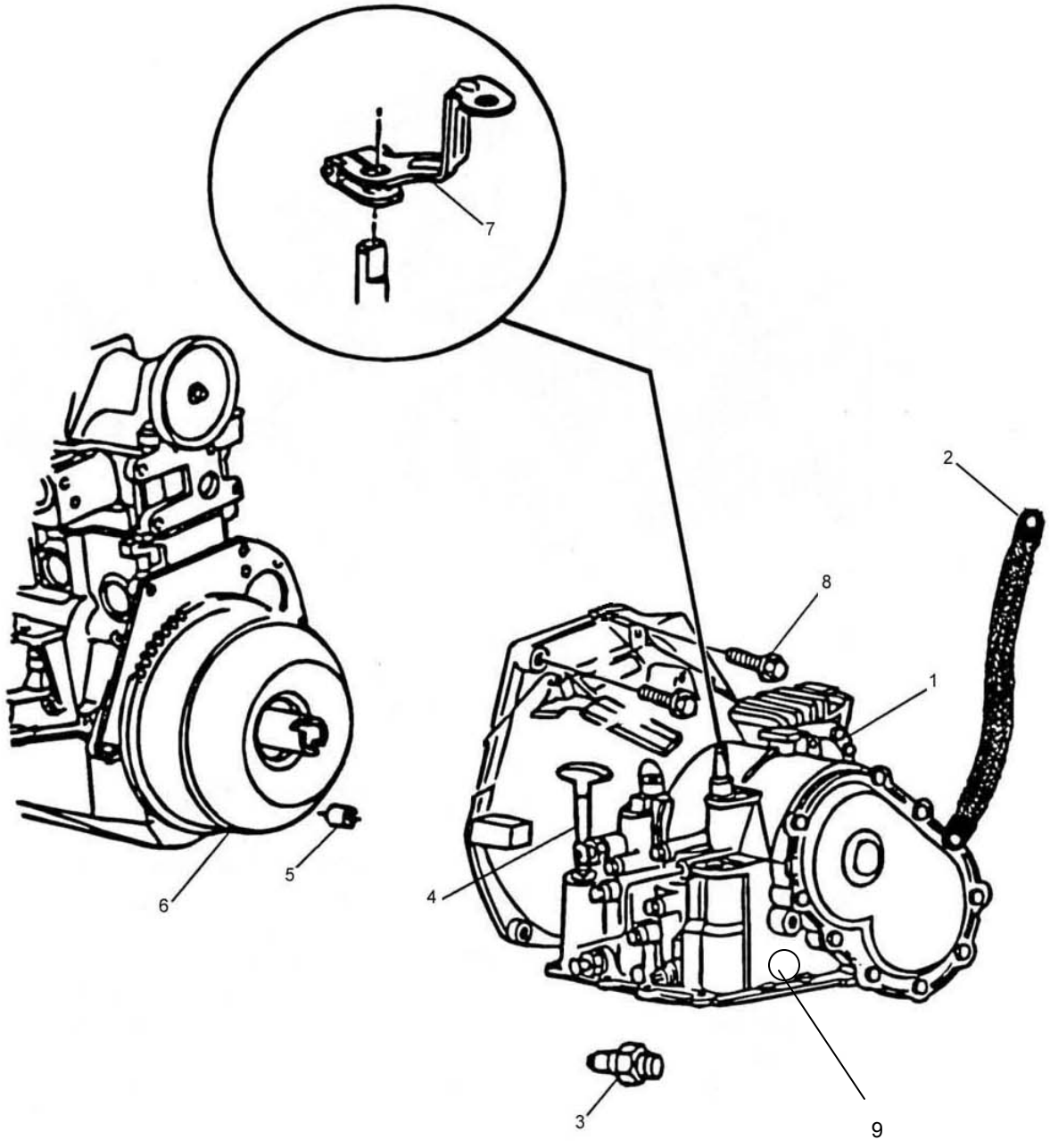


DRIVE SHAFT ASSEMBLY—REAR DETAIL

ITEM	PART NUMBER	QTY.	DESCRIPTION
1	A-TT8-00201-2	1	TRANSMISSION OUTPUT YOKE SHAFT-REAR
2	A-TT4-00134	1	DRIVE SHAFT SPRING
3	A-TT4-00132-1	1	CROSS BEARING FRONT D/S NEW STYLE
4	AB-TT4-00130-1	1	DRIVE SHAFT
5	A-TT4-00130	2	END YOKE STRAP KIT
6	A-TT4-00137	1	CROSS BEARING REAR D/S NEW STYLE

TRANSMISSION

TRANSAXLE MOUNTING & MISC. PARTS



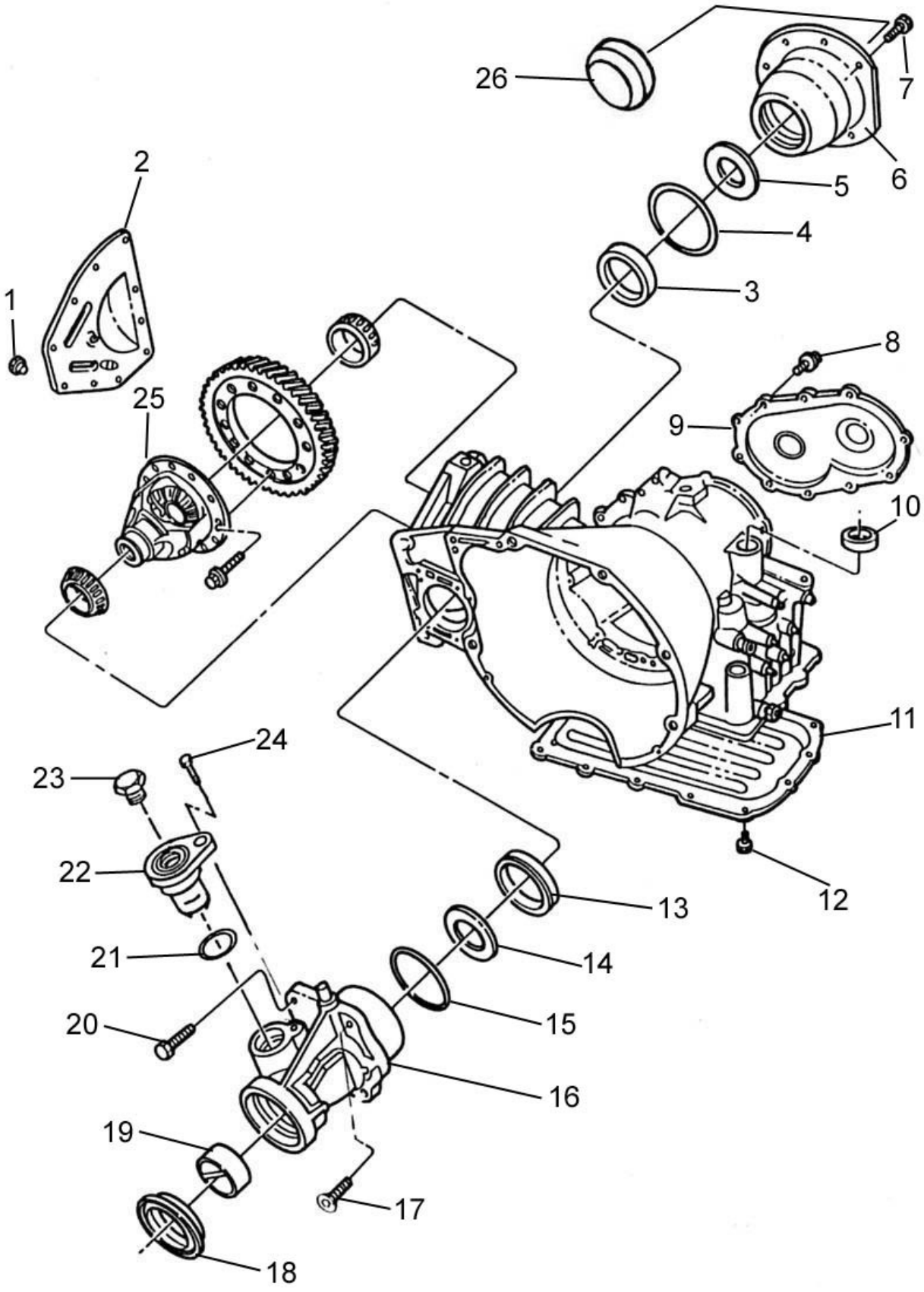
TRANSMISSION

TRANSAXLE MOUNTING & MISC. PARTS DETAIL

ITEM	PART NUMBER	QTY.	DESCRIPTION
1	A-TT5D-0018	1	TRANSAXLE
2	A-TN4-00707	1	GROUND STRAP
3	3747361	1	SWITCH-NEUTRAL STARTER & BACK UP LIGHT
4	4856444	1	INDICATOR-TRANSAXLE FLUID
5	5240849	2	DOWEL PIN-TRANSAXLE TO ENGINE ALIGNMENT
6	4778718	1	TORQUE CONVERTER
7	A-TT4-00419	1	TRANSAXLE SHIFT LEVER-MANUAL CONTROL
8	6501741	2	SCREW-HEX CAP-WITH WASHER M12-1.75 X 30
9	85705	1	GASKET & FILTER MAINTENANCE PACKAGE

TRANSMISSION

TRANSAXLE CASE EXTENTION & RETAINER



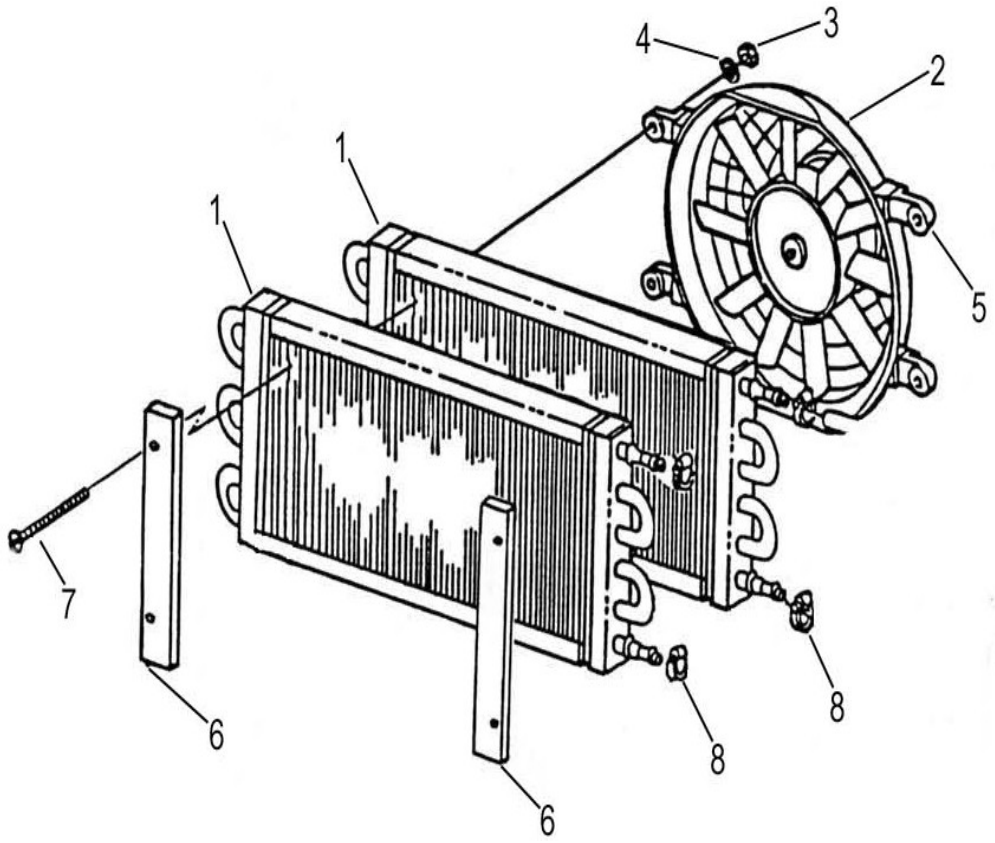
TRANSMISSION

TRANSAXLE CASE EXTENTION & RETAINER - DETAIL

Item	Part Number	Qty	Description
1	6501474	10	SCREW-HEX CAP-W/WASHER M8-1.25 X 16
2	4471573	1	PAN
3	NPN	1	CUP(NOT SOLD SEPARATELY)
4	4504568	1	SPACER KIT
5	4269787	1	RETAINER, OIL
6	4567493	1	RETAINER, BEARING
	6500368	6	SCREW-HEX CAP-M8 X 1.25 X 23
7	NPN	6	SCREW-HEX CAP-WASHER HEAD M8-1.25 X
8	NPN	10	SCREW-HEX CAP M8-1.25 X 15
9	4659342	1	COVER, TRANS. END
	82180	1	RTV SEALANT
	6501474	10	SCREW-HEX CAP W/WASHER M8-1.25 X 16
10	3878447	1	SEAL, MANUAL VALVE SHAFT
11	4471573	1	PAN, TRANSAXLE OIL
12	6501474	12	SCREW-HEX CAP W/WASHER M8-1.25 X 16
	6101285	1	SCREW-HEX CAP-W/WASHER M6-1 X 16
13	4567022	1	CUP
14	4567494	1	RETAINER
15	6500111	1	O-RING
16	4549219	1	OUTPUT HOUSING
	6500511	4	SCREW-HEX CAP-W/WASHER M8-1.25 X 33
17	NPN	2	M8 HEX HEAD SCREW
18	4412522	1	SEAL
19	NPN	1	BUSHING (SERVICED IN EXT.)
20	NPN	4	SCREW-HEX CAP WASHER HEAD M8-1.25 X
21	5212151	1	O-RING
22	4295857	1	SPEEDOMETER CABLE ADAPTOR
23	NPN	1	SCREW-FLAT HEAD HEX SOCKET M8-1.25 X
24	NPN	1	SCREW-HEX CAP-WASHER HEAD M6-1.0 X
25	A-TT5D-00021	1	DIFFERENTIAL-WELDED SPIDER GEAR
26	A-TT4-00657	1	TRANSMISSION PLUG (2WD ONLY)

TRANSMISSION

COOLING SYSTEM— TRANSMISSION

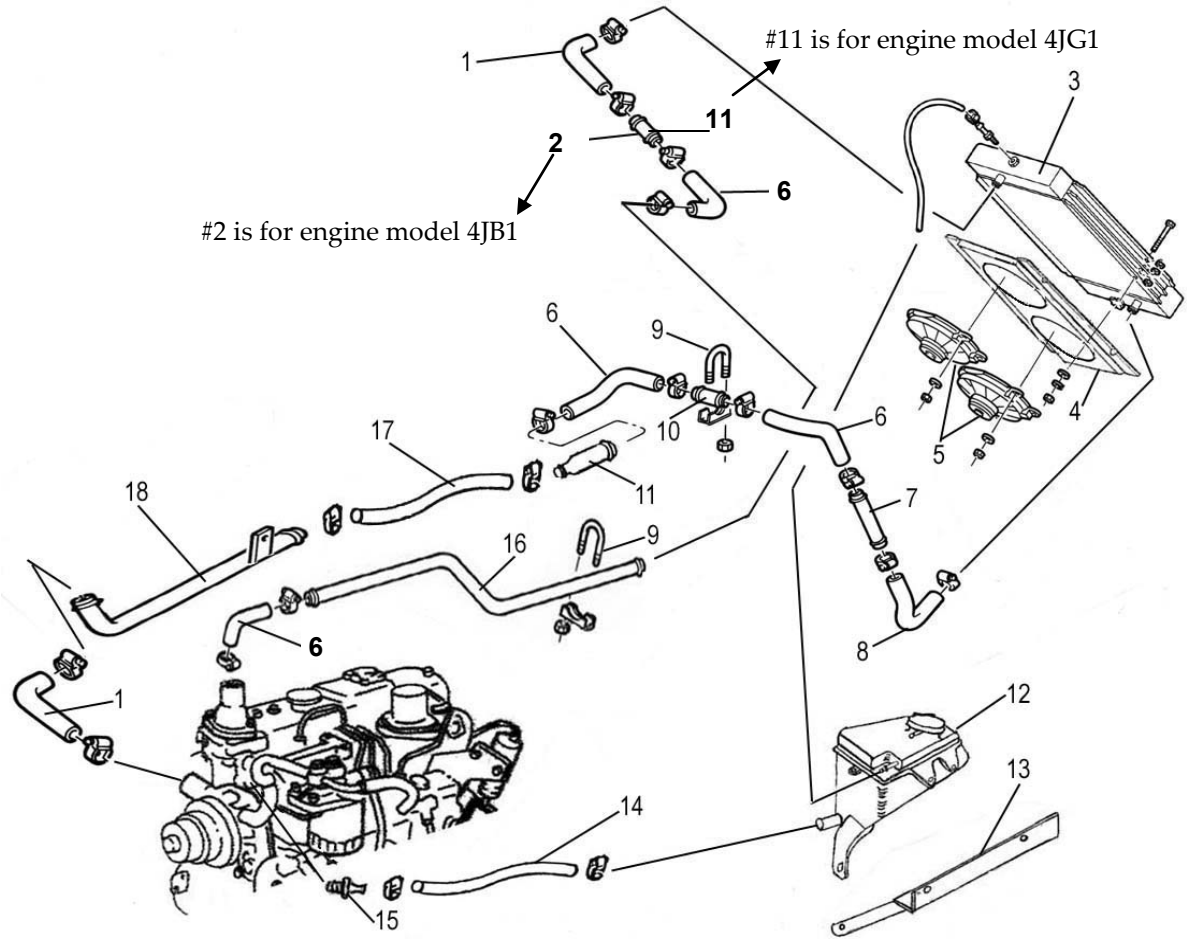


COOLING SYSTEM—TRANSMISSION DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00221-1	2	TRANSMISSION COOLER
2	A-TT4-00312-1	1	ELECTRIC FAN
3	NPN	4	10-32 LOCK NUT
4	NPN	4	1/4" WASHER
5	XX50025	4	FAN MOUNTING BRACKET
6	NPN	2	TRANS COOLER BRACKET
7	NPN	4	10-32 BOLT
8	NPN	4	#6 HOSE CLAMP

COOLING SYSTEM

COOLING SYSTEM—4JG1 & 4JB1 ENGINE MODELS ONLY

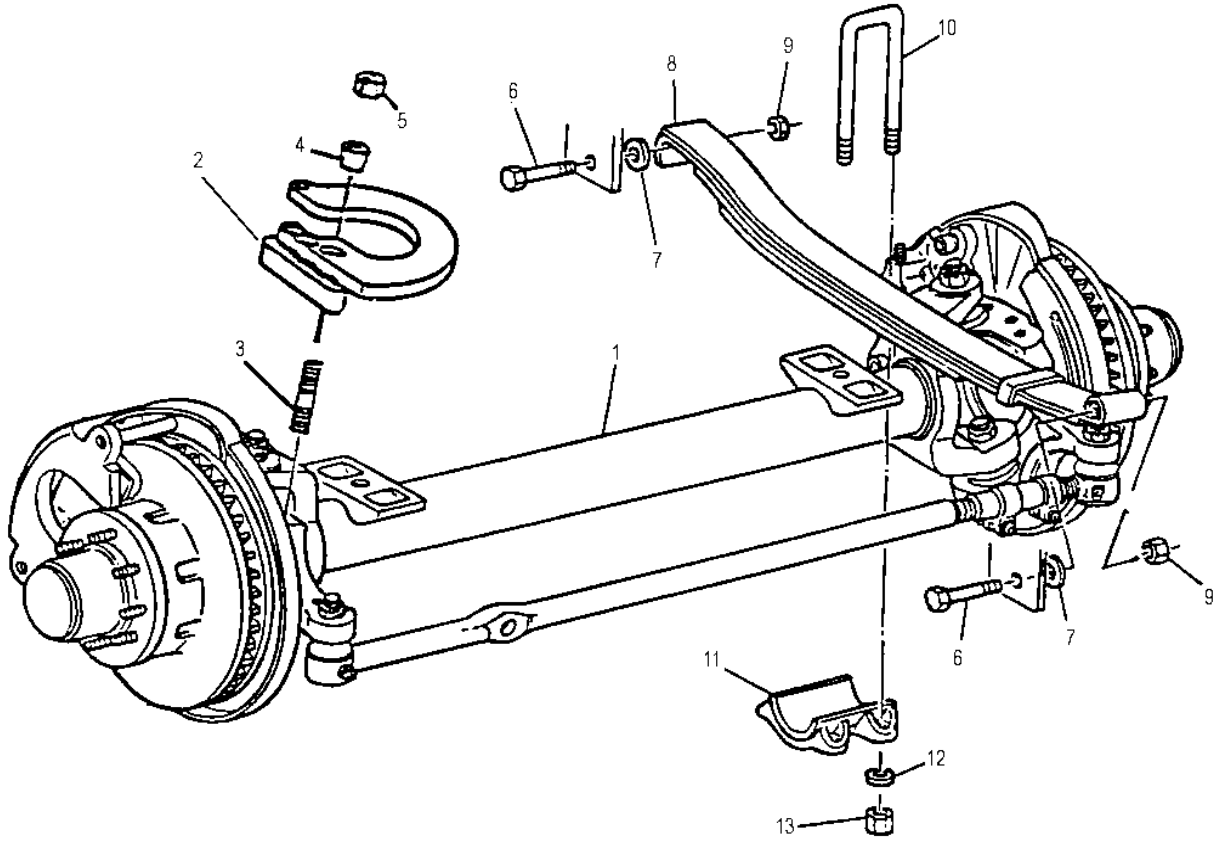


COOLING SYSTEM—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00317	2	90 DEGREE HOSE
2	NPN	1	CONNECTOR TUBE (4JB1 Engine Only)
3	B-TT4-00311-1	1	RADIATOR
4	A-TT8-00341	1	RADIATOR SHROUD
5	A-TT4-00312-1	2	COOLING FAN
6	A-TT4-00323	4	BOTTOM HOSE (CUT TO FIT)
7	A-TN4-00314	1	CONNECTOR TUBE
8	A-TT4-00314	1	BOTTOM RADIATOR HOSE
9	A-TT4-00396	2	U-BOLT
10	A-TT8D-00200	1	CONNECTOR TUBE
11	A-TT8D-00100	2	TUBE CONNECTOR (4JG1 ENGINE ONLY)
12	A-TT4-00322-2	1	RESERVOIR FILL TANK
13	NPN	1	RESERVOIR BRACKET
14	NPN	1	CUT TO FIT, BULK HOSE
15	057123-108	1	FITTING
16	A-TT4F-00326	1	TOP RADIATOR TUBE
17	NPN	1	CUT TO FIT, BULK HOSE
18	A-TT4-00326-3	1	WATER PUMP TUBE

AXLES

AXLE ASSEMBLY—FRONT NON-DRIVE TT4-TT6 2WD ONLY



AXLE ASSEMBLY—FRONT NON-DRIVE—DETAIL

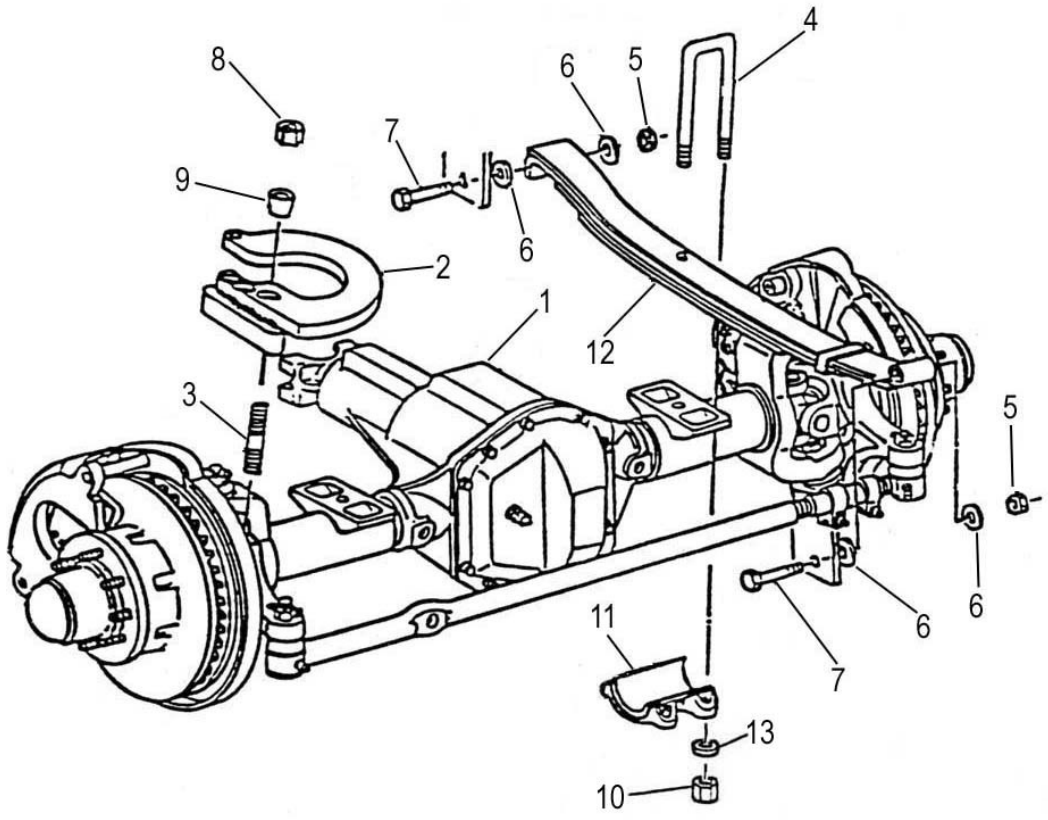
Item	Part Number	Qty	Description
1	A-TT4-00111	1	AXLE ASSAY-FRONT NON-DRIVE
2	C-TT4-00113-1-MACH	1	STEERING ARM - TT4-6 2WD
3	A-TT8-00115	3	STUD-STEERING ARM
4	3965138	3	BUSHING
5	NPN	3	9/16-18 GR8 HEX NUT
6	NPN	4	SCREW-HEX CAP 3/8-16X3.5
7	A-TT4-00119	12	NYLON WASHER
8	A-TT4-00116	2	LEAF SPRING
9	NPN	8	3/8-16 LOCK NUT
10	A-TT4-00362-1	4	U-BOLT KIT
11	A-TT4-00363*	2	AXLE CLAMP PLATE*
12	A-TT4-00366**	8	WASHER, U-BOLT
13	A-TT4-00365**	8	NUT, U-BOLT
14	NPN	2	3/8 FLAT WASHER

* AXLE CLAMP MUST BE MODIFIED - CALL EAGLE PARTS DEPARTMENT FOR DETAILS

**INCLUDED IN #10 U-BOLT KIT

AXLES

AXLE ASSEMBLY—FRONT DRIVE (ALL WHEEL DRIVE)



AXLE ASSEMBLY—FRONT DRIVE—DETAIL

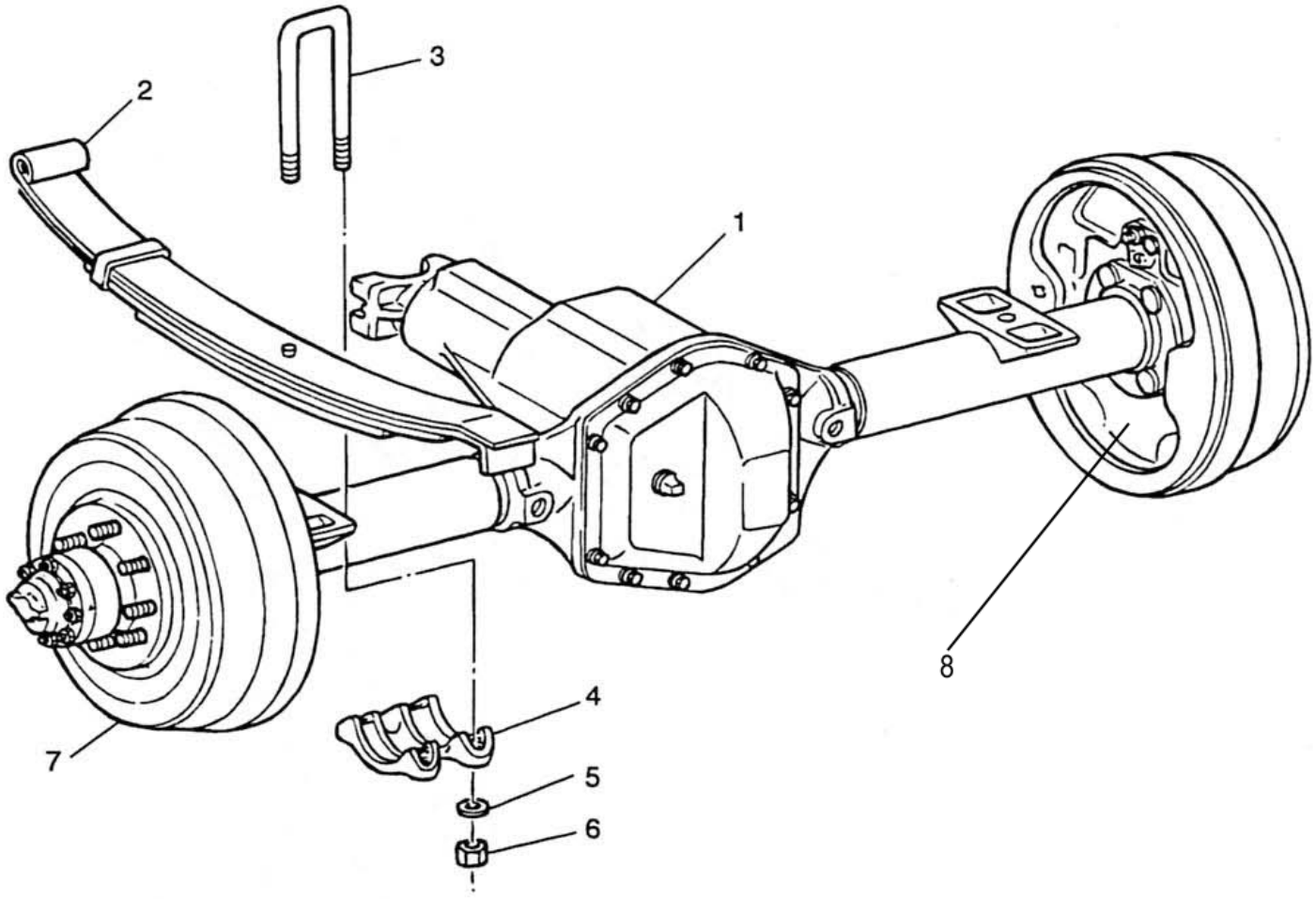
ITEM	PART NUMBER	QTY.	DESCRIPTION
1	A-TT8-00371	1	FRONT DRIVE AXLE ASSEMBLY
2	C-TT4-00113-2-MACH	1	STEERING ARM - TT4-TT8/2 AWD
3	A-TT8-00115	3	STUD - STEERING ARM
4	A-TT4-00362-1	4	KIT
5	NPN	4	3/8X16 LOCK NUT
6	A-TT4-00119	8	NYLON WASHER
7	NPN	4	SCREW-HEX CAP 3/8-16X3.5
8	NPN	3	NUT 9/16-18 GR8
9	3965138	3	BUSHING
10	A-TT4-00365*	8	NUT, U-BOLT
11	A-TT4-00118-3	2	MACHINED AXLE CLAMP PLATE
12	A-TT4-00116	2	LEAF SPRING
13	A-TT4-00366*	8	WASHER, U-BOLT

* INCLUDED IN #4 U-BOLT KIT

NOTES:

AXLES

AXLE ASSEMBLY— REAR



AXLE ASSEMBLY—REAR—DETAIL

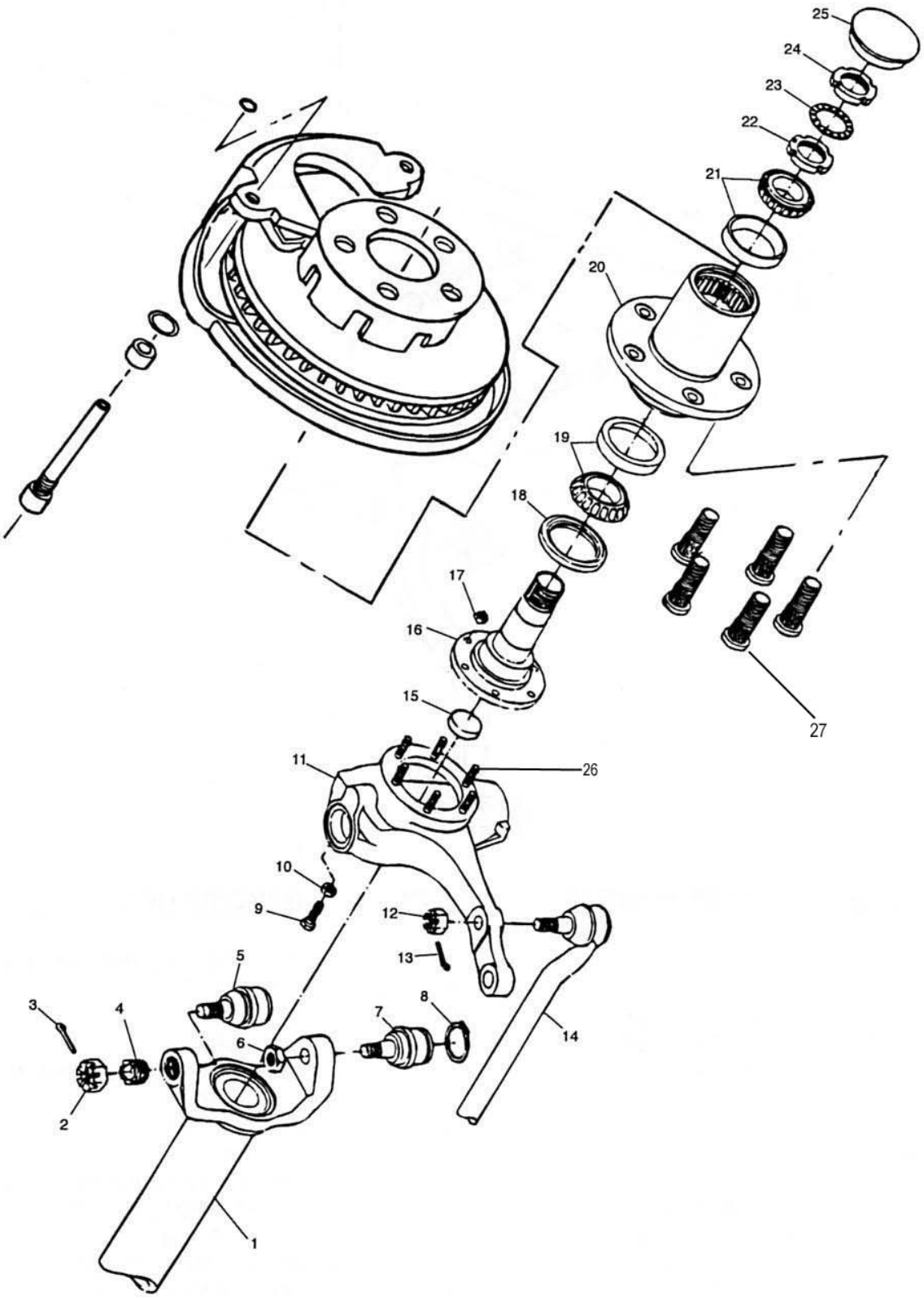
ITEM	PART NUMBER	QTY	DESCRIPTION
1	A-TT4-00361**	1	REAR AXLE ASSEMBLY
2	A-TT4-00116	2	LEAF SPRING
3	A-TT4-00362-1	4	U-BOLT KIT
4	A-TT4-00363	2	AXLE CLAMP PLATE
5	A-TT4-00366*	8	WASHER
6	A-TT4-00365*	8	NUT
7	4313905	1	LEFT HAND BACKING PLATE
8	4313904	1	RIGHT HAND BACKING PLATE

*INCLUDED IN KIT ITEM #3

**CALL EAGLE TUGS FOR INFORMATION IF YOU TUG IS EQUIPPED WITH LIMITED SLIP

AXLES

AXLE ASSEMBLY BREAKDOWN— FRONT NON-DRIVE (2WD)



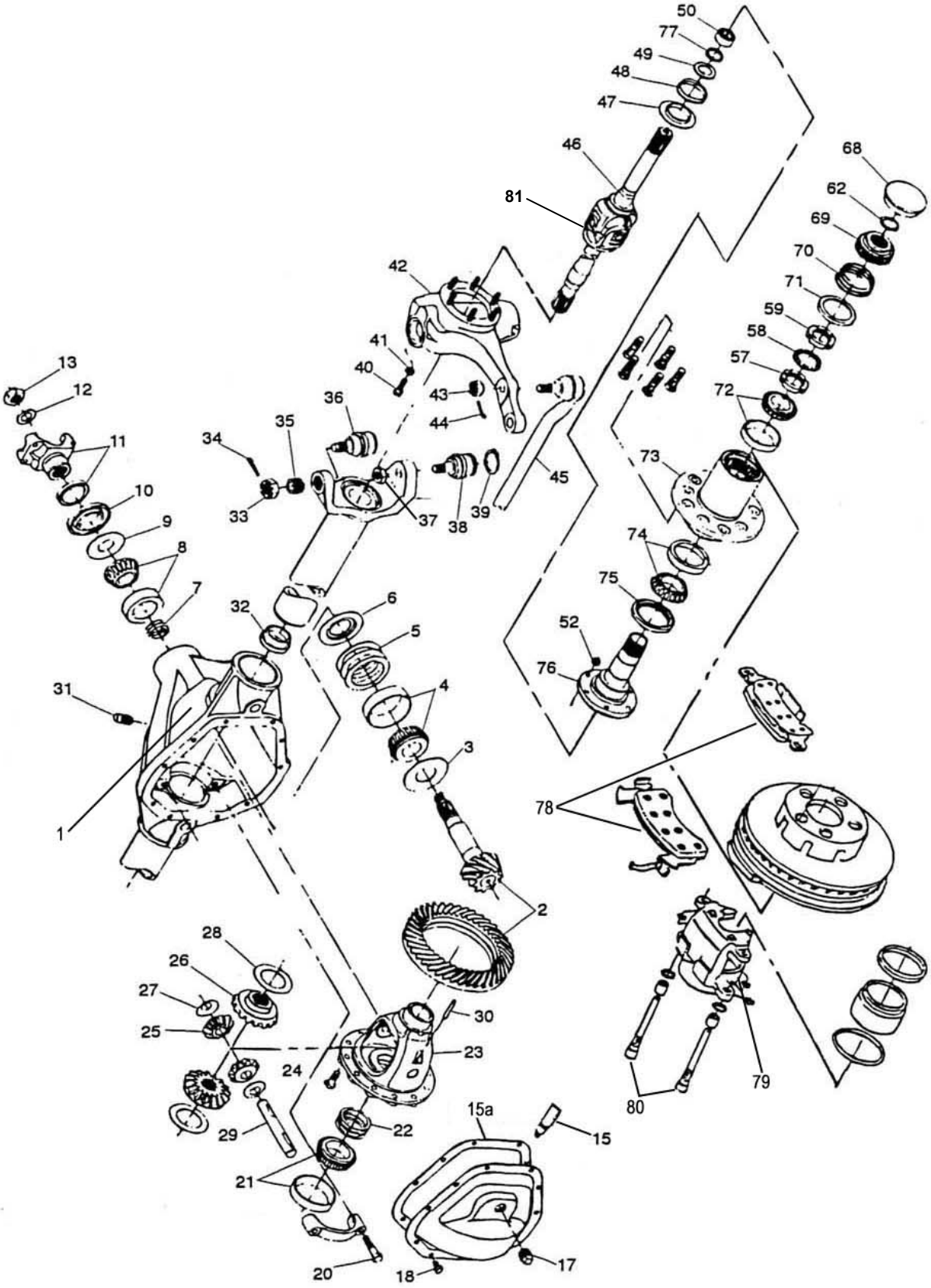
AXLES

AXLE ASSEMBLY BREAKDOWN –FRONT NON-DRIVE—DETAIL

Item	Part Number	Qty	Description
1	29775-29X	1	TUBE ASSEMBLY
2	44101	2	NUT-SLOTTED
3	500024-8	2	PIN-COTTER
4	35417	2	RING-ADJUSTING
5	40112	1	SOCKET ASSEMBLY UPPER
6	35566	2	NUT-LOCK
7	40113	1	SOCKET ASSEMBLY LOWER
8	35928	1	RING-SNAP
9	31026-1	2	BOLT-STOP
10	500381-3	2	NUT-JAM
11	706652X	KIT	STEERING KNUCKLE R/H
11	706653X	KIT	STEERING KNUCKLE L/H
12	44101	2	NUT-SLOTTED
13	500024-6	2	PIN-COTTER
14	044TR115-16X	1	TIE ROD ASSEMBLY
15	36544	2	PLUG-CAP
16	38428	2	SPINDLE-WHEEL BEARING
17	35704	12	NUT-LOCK
18	36361	2	SEAL-LOCK
19	706690-X	KIT	INNER WHEEL BEARING
20	044HU103	2	HUB & ROTOR ASSEMBLY
21	706111-X	KIT	OUTER WHEEL BEARING
22	21588X	2	SPINDLE NUT
23	36569	2	LK WASHER-WHEEL BRG NUT
24	31139	2	NUT-SPINDLE
25	31552	2	CAP-HUB
26	36326-2	6	STUD STEERING KNUCKLE
N/S	044WC101-2	1	CALIPER ASSEMBLY R/H
N/S	044WC101-1	1	CALIPER ASSEMBLY L/H
N/S	044WB101-1	1	BRACKET ASSEMBLY-CALIPER L/H
N/S	044WB101-2	1	BRACKER ASSEMBLY-CALIPER R/H
27	610286	8	WHEEL STUDS

AXLES

AXLE ASSEMBLY BREAKDOWN—FRONT DRIVE (ALL WHEEL DRIVE)



AXLES

AXLE ASSEMBLY BREAKDOWN—FRONT DRIVE—DETAIL

Item	Part Number	Qty	Description
1	A-TT8-00371	1	COMPLETE AXLE ASSEMBLY
2	22404X	1	GEAR & PINION ASSEMBLY
3	30764	1	SLINGER-PINION OIL INNER
4	706031X	KIT	INNER PINION BEARING
5	706617X	KIT	SHIM-PINION ADJUSTING INCLUDES ITEMS 5,7,12,13,15 & 15A
6	30765	1	BAFFLE-PINION OIL
7	706617X	KIT	SEE ITEM 5
8	706030	KIT	OUTER PINION BEARING & RACE
9	13575	1	SLINGER-PINION OIL OUTER
10	39118	1	SEAL-OIL
11	345761X	1	END YOKE ASSEMBLY
12	30186	1	WASHER-PINION NUT
13	30185	1	NUT-PINION
15	82180	AR	RTV SEALANT
15a	34685	1	GASKET
17	36472	1	PLUG-COVER PLATE
18	34279	10	SCREW-FLANGE HD
19	N/A	2	CAP DIFFERENTIAL BEARING
20	48632-1	2	1/2-13 X 2.25 GRD8 HEX BOLT
21	706032X	KIT	DIFFERENTIAL BEARING & RACE
22	706618X	KIT	DIFFERENTIAL SHIM INCLUDES ITEM 22,15
23	25806X	1	CASE-DIFFERENTIAL ASSY
	32684	1	CASE-DIFFERENTIAL
24	41221	10	BOLT-DRIVE GEAR
25	17717	2	PINION-DIFFERENTIAL
26	706027X	2	GEAR-DIFFERENTIAL KIT INCLUDES ITEMS 15A & 24-29
27	13338-3	2	THRUST WASHER DIFFERENTIAL PINION
28	32121	2	THRUST WASHER DIFFERENTIAL GEAR
29	39194	1	SHAFT-DIFFERENTIAL
30	13449	1	PIN-ROLL
31	16979	1	VENT
32	36352	2	SEAL & GUIDE-SHAFT
33	44101	2	NUT-SLOTTED
34	500024-8	2	PIN-COTTER
35	35417	2	RING-ADJUSTING
36	40112	1	SOCKET ASSEMBLY-UPPER
37	35566	2	NUT-LOCK
38	40113	1	SOCKET ASSEMBLY-LOWER
39	35928	1	RING-SNAP
40	310026-2	2	BOLT-STOP
41	500381-3	2	NUT-LOCK
42	706652X	KIT	STEERING KNUCKLE R/H INCLUDES ITEMS 33-39 & 42

AXLES

AXLE ASSEMBLY BREAKDOWN—FRONT DRIVE—DETAIL (CONT.)

Item	Part Number	Qty	Description
42	706653X	KIT	STEERING KNUCKLE L/H
43	44101	2	NUT-SLOTTED
44	500024-4	2	PIN-COTTER
45	044TR115-16X	1	TIE ROD ASSEMBLY
46	660091-18	2	SHAFT & JOINT ASSEMBLY INCLUDES ITEM 47
47	36364	1	SLINGER
48	38128	2	SEAL-OIL
49	38106	2	SPACER
50	550759	2	BEARING-NEEDLE
52	35704	12	NUT-LOCK
57	21588X	2	SPINDLE NUT
58	36569	2	LOCK-RETAINING NUT
59	31139	2	NUT-SPINDLE
62	31624	2	RING-SNAP
68	31552	2	CAP-HUB
69	42667	2	GEAR-AXLE DRIVE
70	35218	2	SPRING PRESSURE
71	32589	2	PLATE-SPRING RETAINING
72	706111X	KIT	OUTER WHEEL BEARING & RACE
73	044HU103	2	HUB & ROTOR ASSEMBLY
74	706690-X	KIT	INNER WHEEL BEARING & RACE
75	36366	2	AXLE SEAL
76	706570	KIT	SPINDLE ASSEMBLY INCLUDES ITEMS 48,49,5,77 & 76
	7065227X	KIT	SPINDLE SEAL & BEARING INCLUDES ITEMS 50,77,48 & 49
77	36361	1	SEAL-OIL
78	RD52	1 SET	BRAKE PAD SET
79	18009659	1	CALIPER WITHOUT PADS -R/H
79	18009658	1	CALIPER WITHOUT PADS-L/H
79	044WC101-1	1	CALIPER ASSY WITH PADS L/H
79	044WC101-2	1	CALIPER ASSY WITH PADS R/H
80	5468226	1SET	ANCHOR BOLTS
81	5-297-1X	2	GREASABLE U-JOINT FOR ITEM 46

Recommended tools:

OTC 7157 To remove Front Axle Spindle Nut (Dana 44)

OTC 7080 To remove Front Axle Top Ball Joint (Dana 44)

OTC 1902 To remove Front & Rear Axle Spindle Nut (Dana 70)

AXLES

RECOMMENDED TORQUE SPECIFICATIONS FOR DANA 44 AXLE (FRONT)

POSITION	THREAD	WRENCH TORQUE (LBS.-FT)
Drive Pinion Nut	3/4 - 16	175-225
Differential Bearing Cup Cap Screws	1/2 - 13	70-90
Ring Gear Cap Screws	3/8 - 24	45-65
Cover Screws	5/16 - 18	28-33 (Note A)
Axke Shaft Bearing & Brake Retainer Nuts	3/8 - 24	40-50
Spindle Mounting Nuts	3/8 - 24	40
Spindle Mounting Nuts	7/16 - 20	50-60
Tie Rod Stud Nut	1/2 - 20	35 Min (Note B)
Tie Rod Stud Nut	9/16 - 18	35 Min (Note B)
Tie Rod Clamp Nuts	3/8 - 24	15-25
Tie Rod Clamp Nuts	7/16 - 20	25-40
Steering Arm Nuts	9/16 / 18	80-100
Steering Bolt Stop Screw & Jam Nut	3/8 - 24	10-20

RECOMMENDED TORQUE SPECIFICATIONS FOR DANA 60 AXLE (REAR)

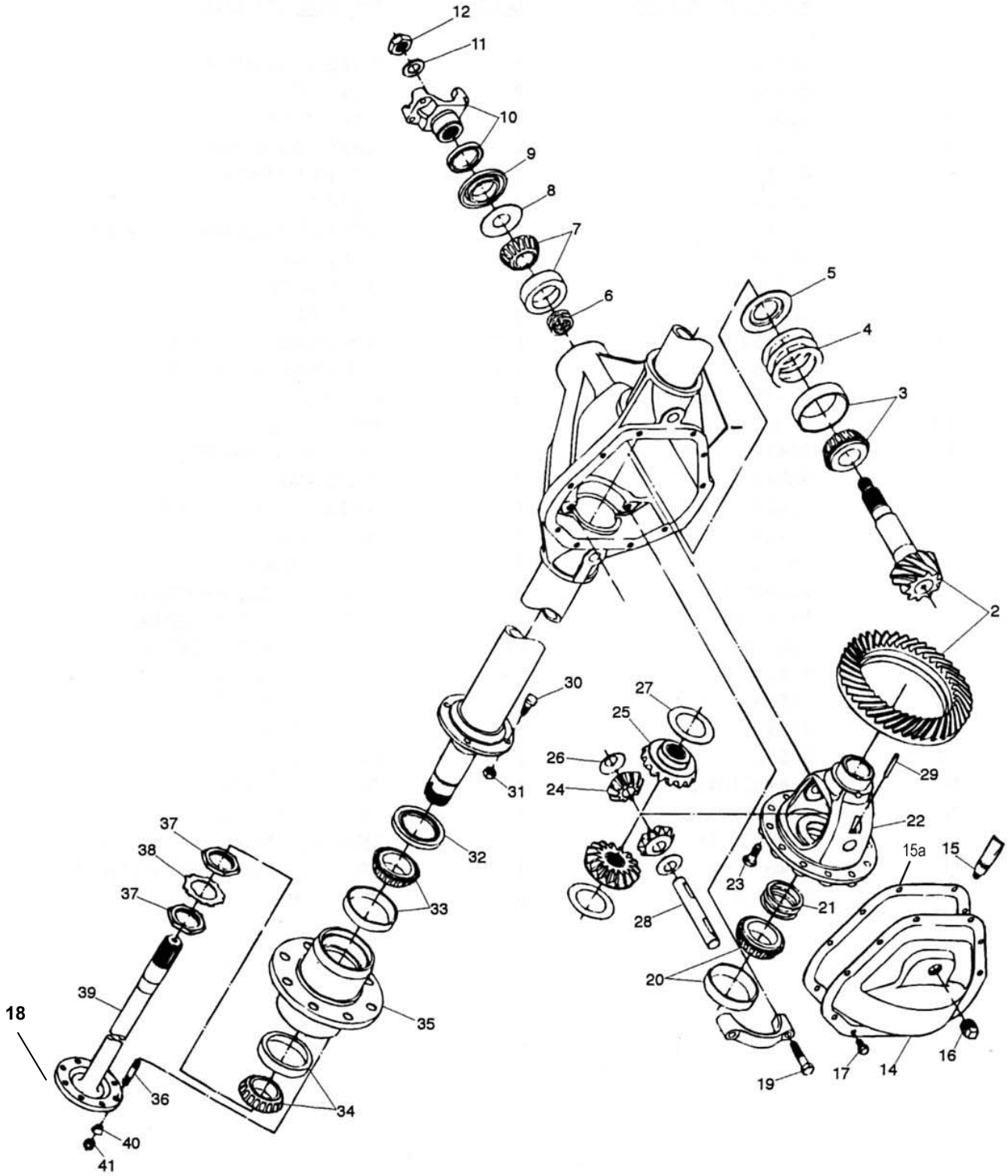
POSITION	THREAD	WRENCH TORQUE (LBS.-FT)
Drive Pinion Nut	7/8 - 14	240-300
Differential Bearing Cup Cap Screws	1/2 - 13	70-90
Ring Gear Cap Screws	1/2 - 20	100-120
Ring Gear Cap Screws	1/2 - 20	120-14 (Note A)
Cover Screws	3/8 - 16	30-40
Brake Retainer Nuts	7/16 - 20	64-70
Axle Shaft Flange Nuts	7/16 - 20	64-70
Upper Kingpin	1 1/8 - 12	500-600
Kingpin Cap Cap Screws	1/2 - 20	70-90
Spindle Mounting Nuts	1/2 - 20	60-80
Tie Rod Stud Nut	5/8 - 18	70 Min (Note B)
Tie Rod Clamp Nuts	1/2 - 20	35-45
Steering Arm Nuts	1/2 - 20	70-90
Steering Bolt Stop Screw & Jam Nut	1/2 - 20	10-20

A. For Grade 9 fastener with locking serrations on underside of cap screw head or nut.

B. If cotter pin cannot be installed after minimum torque is attained, the nut must be advanced until cotter pin can be installed.

AXLES

AXLE ASSEMBLY BREAKDOWN—REAR DRIVE



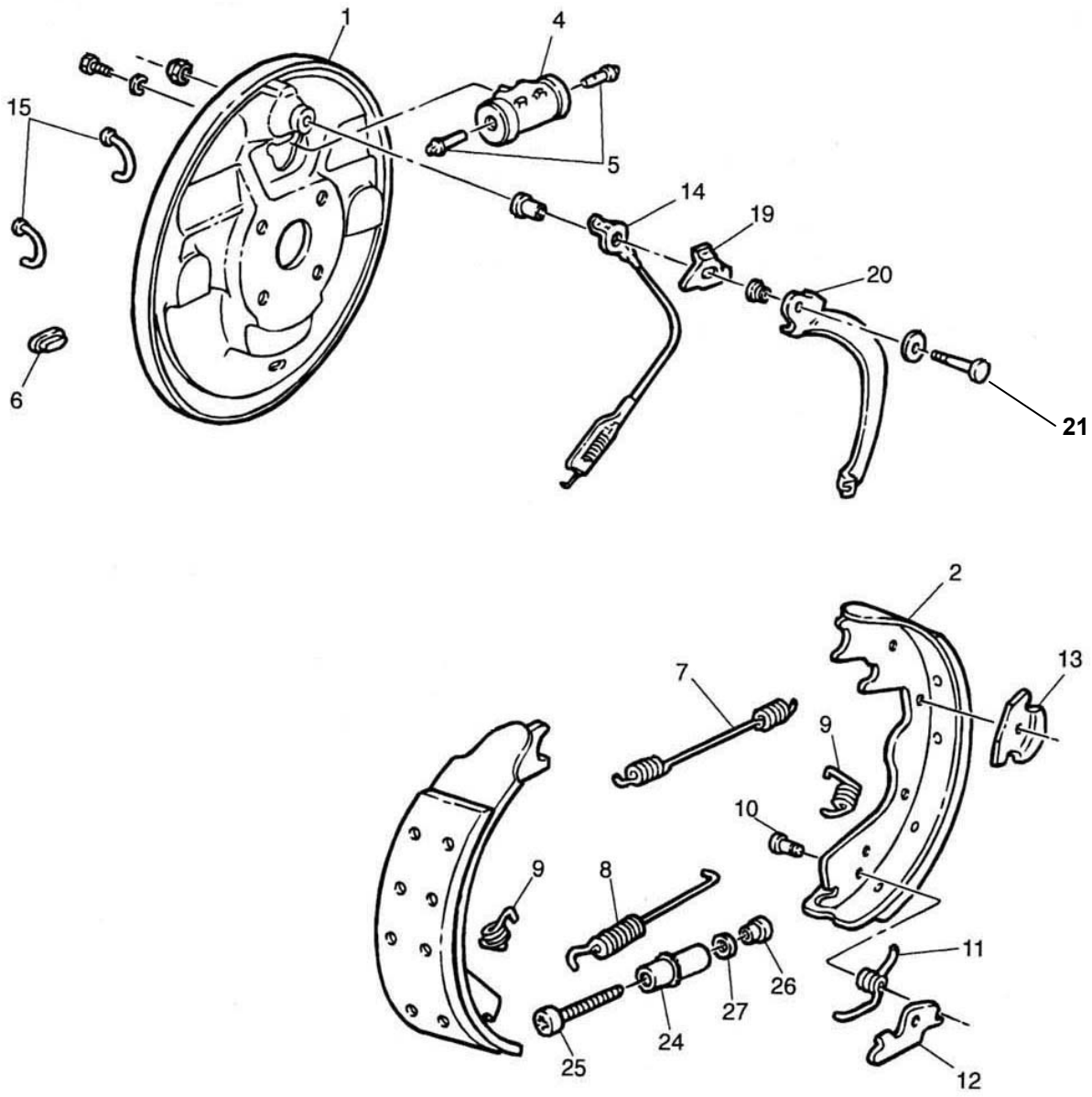
AXLES

AXLE ASSEMBLY BREAKDOWN—REAR DRIVE—DETAIL

Item	Part Number	Qty	Description
	A-TT4-00361	1	COMPLETE AXLE ASSEMBLY
2	706033-10X	KIT	DRIVE GEAR & PINION
3	706046X	KIT	INNER PINION BEARING & RACE
4	706672X	KIT	SHIM-DRIVE PINION ADJUSTING
5	30765	1	BAFFLE-PINION BEARING
6	706672X	KIT	SHIM-PINION BEARING ADJUSTING
7	706045X	KIT	OUTER PINION BEARING & RACE
8	30273	1	SLINGER-PINION BEARING
9	38427	1	SEAL-PINION
10	345731X	1	END YOKE ASSEMBLY
11	30275	1	WASHER-PINION NUT
12	30271	1	NUT-PINION
14	73597	1	COVER ASSEMBLY
15	82180		RTV SEALANT
15a	39697	1	AXLE GASKET
16	98785	1	PLUG-PIPE SLOTTED
17	34822	10	SCREW-FLANGE HD
18	39697	1	AXLE SHAFT GASKET
19	48632-1	2	1/2-13 x 2.25 GRD8 BOLT BEARING CAP
20	706047X	KIT	BEARING & RACE
21	706673X	KIT	SHIM-DIFFERENTIAL BEARING
22	706669X	KIT	CASE-DIFFERENTIAL
23	30266	10	BOLT-DRIVE GEAR
24	SEE KIT	KIT	PINION-DIFFERENTIAL
25	SEE KIT	KIT	GEAR-DIFFERENTIAL
26	SEE KIT	KIT	THRUST WASHER-PINION
27	SEE KIT	KIT	THRUST WASHER-GEAR
28	SEE KIT	KIT	SHAFT-DIFFERENTIAL
29	500598-21	1	LOCK-DIFFERENTIAL
30	36253	8	BOLT-BRAKE MANUFACTURING
31	36805	8	NUT-BRAKE MANUFACTURING
32	36240	2	SEAL-OIL
33	706071X	KIT	INNER WHEEL BEARING
34	706072X	KIT	OUTER WHEEL BEARING
35	36241	2	HUB & DRUM ASSEMBLY
36	36847	8	STUD-HUB
37	30636	4	NUT-SPINDLE
38	30637	2	LOCK WASHER WHEEL BEARING
39	34887-7	1	SHAFT-AXLE FLANGE LONG
	34887-10	1	SHAFT-AXLE FLANGE SHORT
40	31534	16	ADAPTER-STUD
41	36805	24	NUT-LOCK
	16979	1	VENT
	060WD100	1	BRAKE ASSEMBLY-SHOE TYPE-RIGHT
	060WD101	1	BRAKE ASSEMBLY-SHOE TYPE-LEFT
KIT	706671X	1	DIFFERENTIAL PARTS (STANDARD) INCLUDES 15, 21-23, 29

BRAKES

DRUM BRAKE ASSEMBLY—REAR



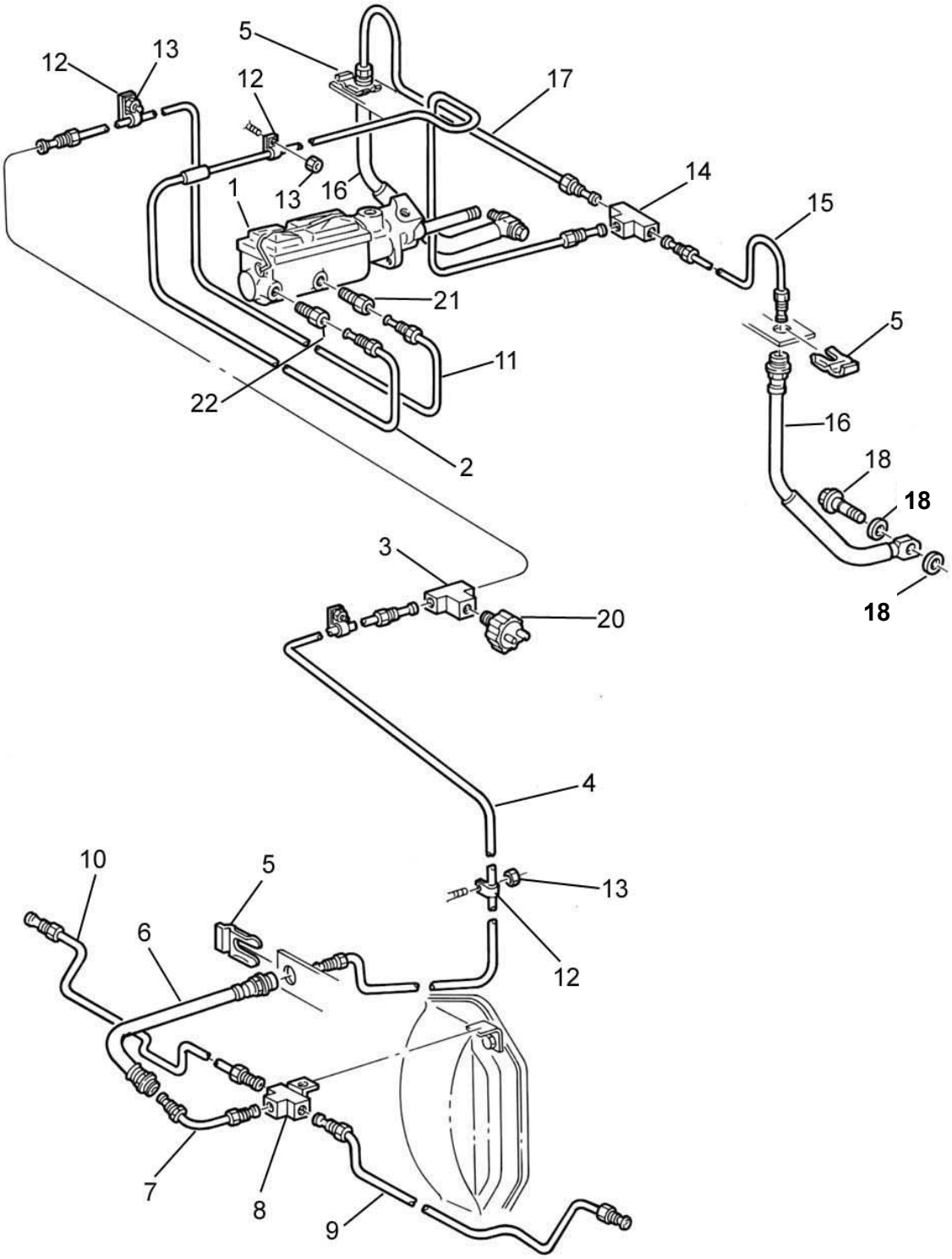
BRAKES

DRUM BRAKE ASSEMBLY—REAR –DETAIL

Item	Part Number	Qty	Description
	060WD101	1	BRAKE ASSEMBLY L/H
	060WD100	1	BRAKE ASSEMBLY R/H
1	4313905	1	BACKING PLATE L/H
1	4313904	1	BACKING PLATE R/H
2	FR357	1 SET	SHOE & LINING SET
4	2235585	1	CYLINDER ASSEMBLY L/H
4	2235586	1	CYLINDER ASSEMBLY R/H
5	315834	2	WHEEL CYLINDERS CONNECTING LINK
6	*SEE KIT BELOW	1	COVER
7	*SEE KIT BELOW	1	SPRING-UPPER
8	*SEE KIT BELOW	1	SPRING-LOWER
9	*SEE KIT BELOW	2	SPRING-HOLD DOWN
10	*SEE KIT BELOW	1	PIN
11	*SEE KIT BELOW	1	SPRING TENSION
12	*SEE KIT BELOW	1	BRAKE ADJUSTING LINK
13	*SEE KIT BELOW	1	CABLE GUIDE
14	*SEE KIT BELOW	1	CABLE ASSEMBLY
15	*SEE KIT BELOW	2	SPRING-HOLD DOWN
19	4383299	1	PARKING BRAKE CAM L/H
19	4383298	1	PARKING BRAKE CAM R/H
20	4383264	1	PARKING BRAKE LEVER (LEFT)
20	4383265	1	PARKING BRAKE LEVER (RIGHT)
21	4419698	1	BRAKE ANCHOR BOLT
24	*SEE KIT BELOW	1	BRAKE ADJUSTING SOCKET L/H
25	*SEE KIT BELOW	1	BRAKE ADJUSTING SCREW L/H
26	*SEE KIT BELOW	1	BRAKE ADJUSTING SOCKET
27	*SEE KIT BELOW	1	WASHER FLAT
KIT	H2588	LEFT	BRAKE ADJUSTING KIT INCLUDES PART
			6,10,11,12,14,13,20,24,25,26,27
KIT	H2589	RIGHT	BRAKE ADJUSTING KIT INCLUDES PART
			6,10,11,12,14,13,20,24,25,26,27
KIT	H7146		BRAKE SPRING KIT INCLUDES PART
			7,8,9,15
*KIT PARTS NOT SOLD SEPERATELY			

BRAKES

BRAKE SYSTEM—HYDRAULIC



BRAKES

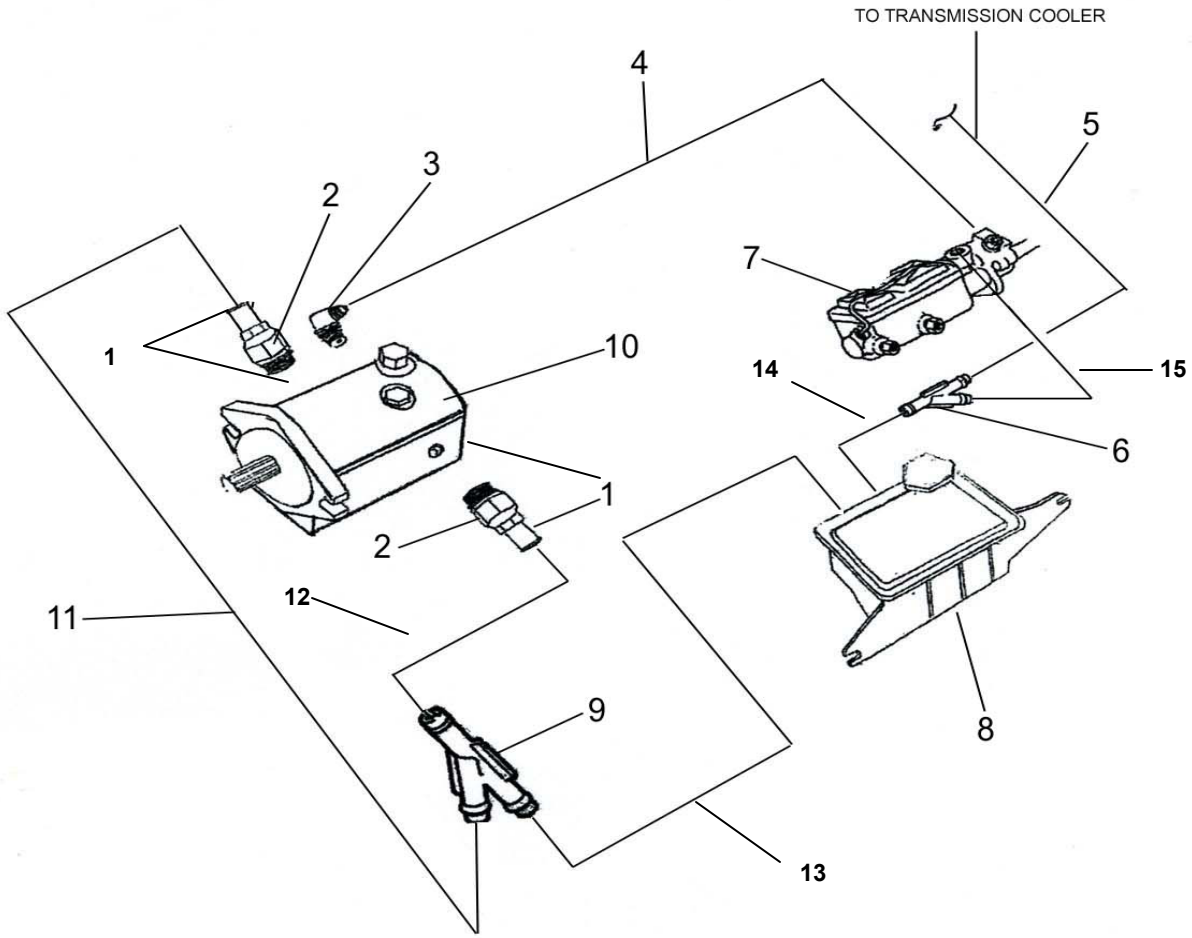
BRAKE SYSYEM—HYDRAULIC—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00161-1	1	MASTER CYLINDER
2	A-TT4-00162	1	BRAKE LINE MASTER CYLINDER
3	A-TT4-00163	1	BRAKE LIGHT SWITCH TEE
4	A-TT4-00164	1	BRAKE LINE REAR
5	A-TT4-00165	3	BRAKE HOSE CLAMP
6	A-TT4-00166	1	BRAKE HOSE REAR
7	A-TT4-00167	1	BRAKE LINE
8	A-TT4-00168	1	CROSS TEE
9	A-TT4-00169	1	BRAKE LINE REAR RT
10	A-TT4-00170	1	BRAKE LINE LEFT REAR LT
11	A-TT4-00171	1	BRAKE LINE REAR
12	NPN	4	LINE CLAMP
13	NPN	4	NUT-10-32
14	A-TT4-00174	1	CROSS TEE
15	A-TT4-00175	1	BRAKE LINE FRONT RIGHT
16	A-TT4-00176-1	2	CALIPER BRAKE LINE
17	A-TT4-00177	1	BRAKE LINE FRONT LEFT
18	A-TT4-00178	2	BANJO BOLT & WASHER KIT
20	A-TT4-00173	1	BRAKE LIGHT SWITCH
21	A-TT5-00180	1	FITTING-MASTER CYLINDER ADAPTER
22	A-TT5-00181	1	FITTING-MASTER CYLINDER ADAPTER

NOTES:

BRAKES

HYDRAULIC ACTUATION BRAKING SYSTEM

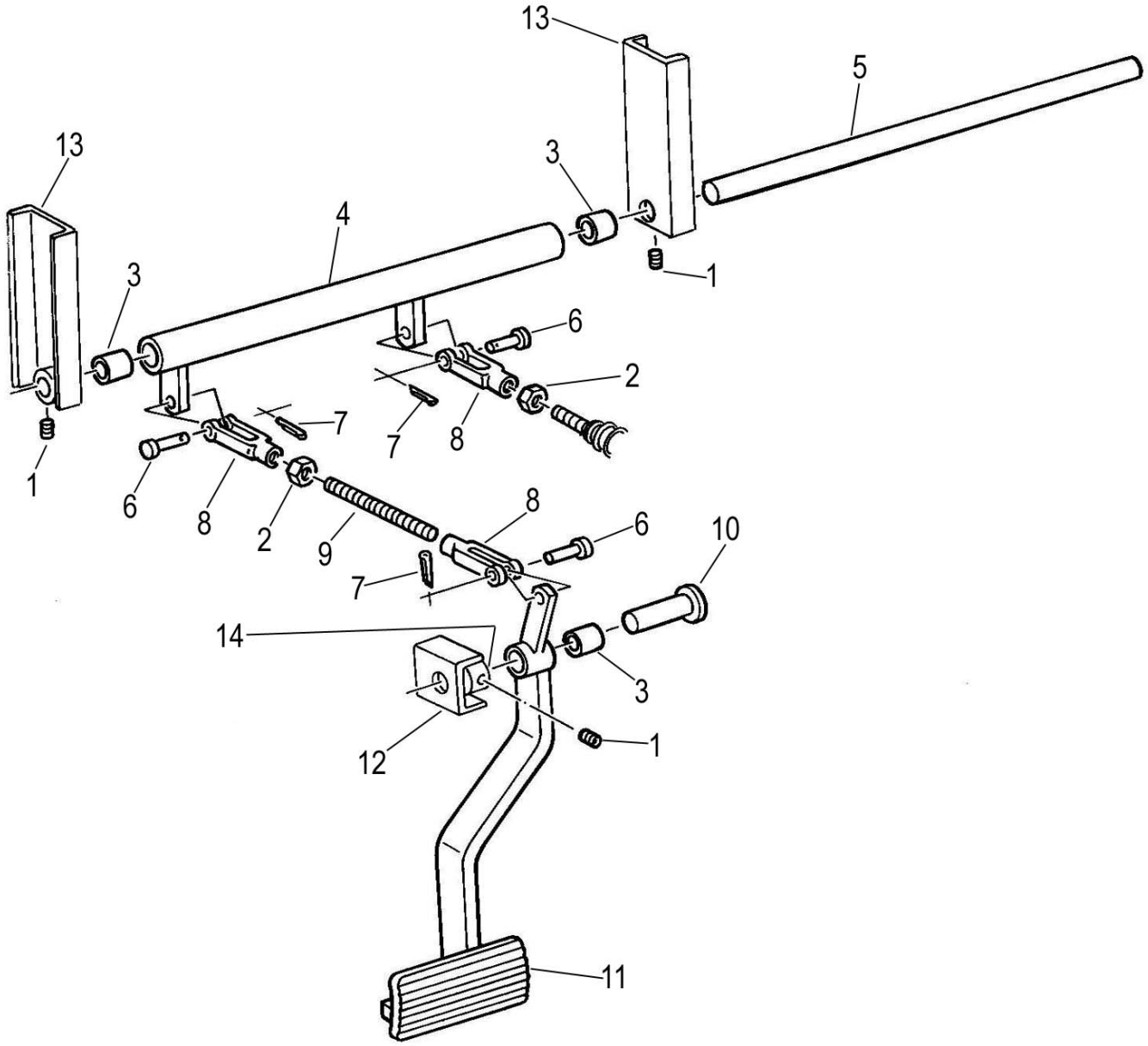


HYDRAULIC ACTUATION BRAKING SYSTEM DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00606-1A	5	NIPPLE
2	C3269X12X8	2	BUSHING
3	C5515X6	1	90 DEGREE SWIVEL FITTING
4	06UB67-56-06U606	1	CUT TO FIT, BULK HOSE
5	NPN	1	CUT TO FIT, BULK HOSE - 3/8" 350 PSI
6	A-TT4-00207	1	RETURN LINE TEE
7	A-TT4-00161-1	1	MASTER CYLINDER
8	F81Z3A697AB	1	POWER STEERING RESERVOIR TANK
9	A-TT4-00606-1	1	Y FITTING
10	SP20PB11L145H3R	1	PUMP
11	12GMV MEGAVAC	1	BULK HOSE 3/4" SUCTION 37"
12	12GMV MEGAVAC	1	BULK HOSE 3/4" SUCTION 3"
13	12GMV MEGAVAC	1	BULK HOSE 3/4" SUCTION 31"
14	NPN	1	CUT TO FIT, BULK HOSE - 3/8" 350 PSI
15	NPN	1	CUT TO FIT, BULK HOSE - 3/8" 350 PSI

BRAKES

BRAKE ACTUATOR ASSEMBLY



BRAKES

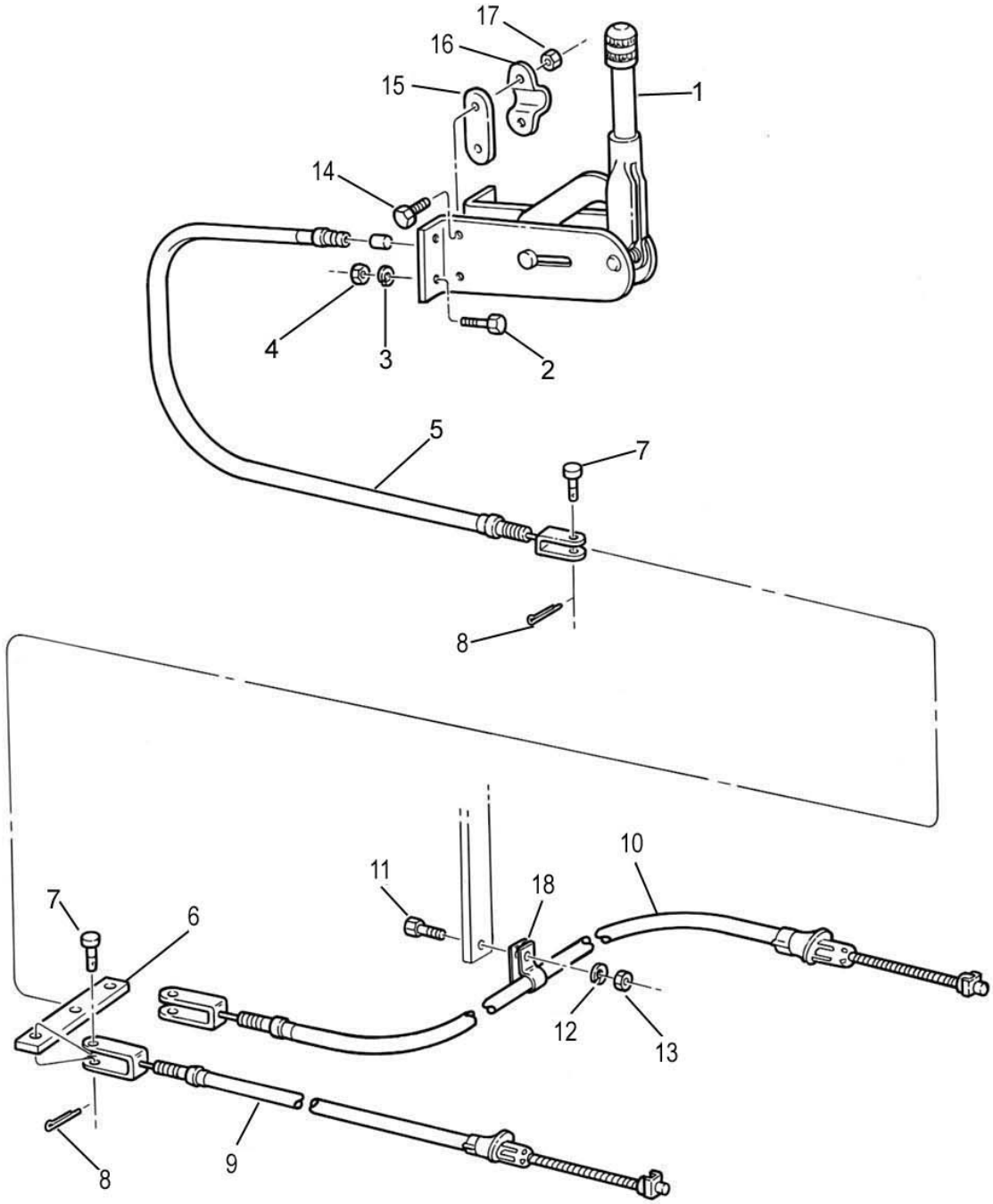
BRAKE ACTUATOR ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	NPN	4	¼-20 SET SCREW
2	NPN	2	½-20 NUT
3	C-TT4-10188	3	THOMSON NYLINER BEARING
4	C-TT4-10186	1	BELL CRANK
5	C-TT4-10187	1	BELL CRANK PIVOT SHAFT
6	A-TT4-00193	3	CLEVIS PIN
7	NPN	3	COTTER PIN
8	A-TT4-10192	3	CLEVIS
9	NPN	1	½-20 X 12 ADJUSTING ROD
10	C-TT4-10182	1	BRAKE PEDAL PIVOT SHAFT
11	C-TT4-10181	1	BRAKE PEDAL
12*	NPN	1	BRAKE PEDAL PIVOT
13	NPN	2	BELL CRANK STANDOFF
14	A-TT2-0057*	2	SHAFT COLLAR 3/4

* Welded to truck

BRAKES

PARKING BRAKE ACTUATOR ASSEMBLY



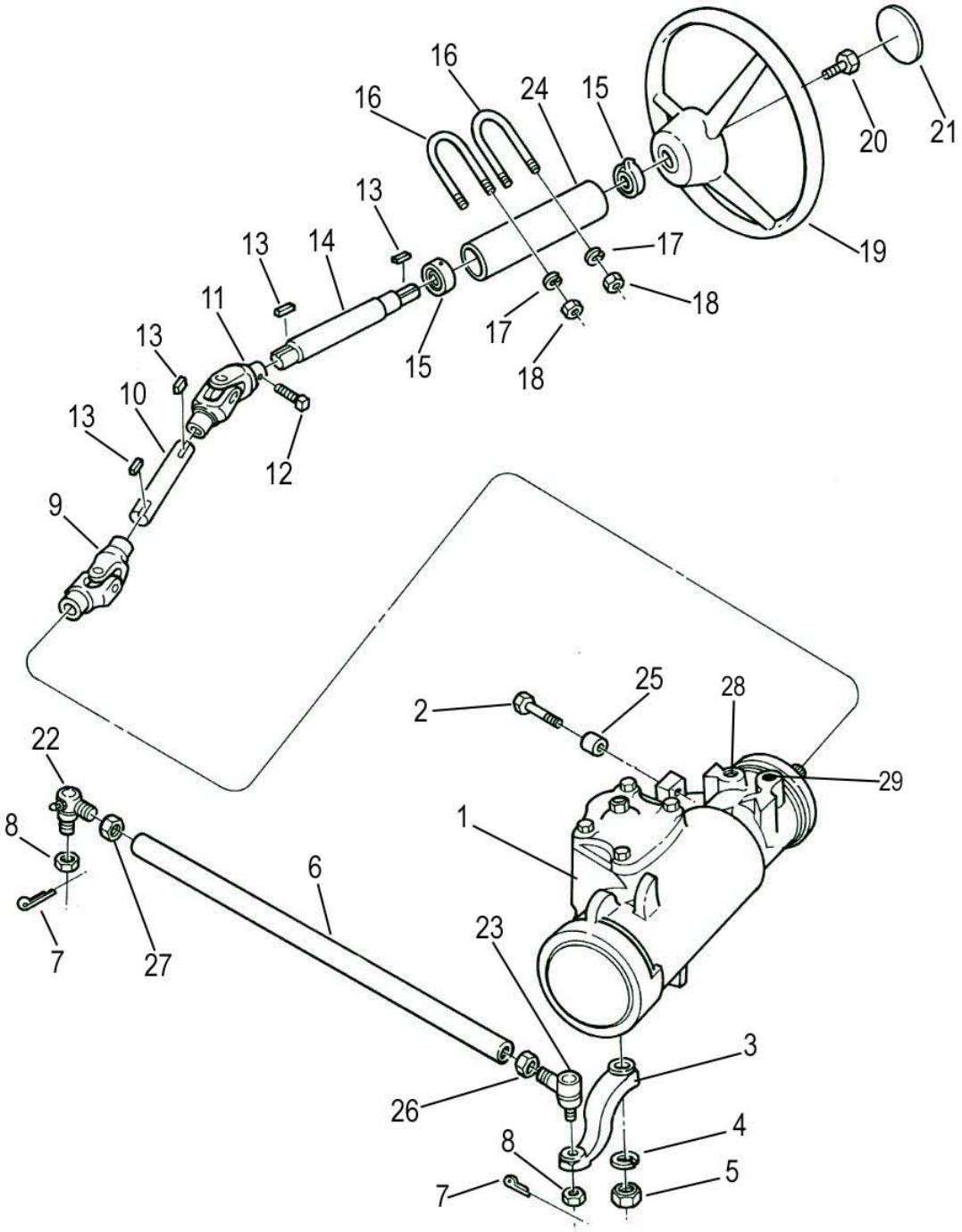
BRAKES

PARKING BRAKE ACTUATOR ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00141	1	HAND BRAKE
2	NPN	4	SCREW-HEX CAP-5/16-18 X 1
3	NPN	4	WASHER-FLAT-5/16
4	NPN	4	NUT-LOCK-5/16-18
5	B-TT4-00145	1	CABLE PRIMARY
6	A-TT4-00146	1	BAR EQUALIZER
7	NPN	3	CLEVIS PIN
8	NPN	3	COTTER PIN
9	A-TT4-00151	1	PARKING BRAKE CABLE LEFT REAR
10	A-TT4-00150	1	PARKING BRAKE CABLE RIGHT REAR
11	NPN	1	SCREW-HEX CAP-14-20 X 1
12	NPN	1	WASHER-FLAT-1/4
13	NPN	1	NUT-LOCK-1/4-20
14	NPN	1	SCREW-HEX CAP-1/4-28 X 1
15	NPN	1	CABLE CLAMP PLATE
16	NPN	1	CABLE CLAMP HANDLE
17	NPN	2	NUT-LOCK-1/4-28
18	NPN	2	CABLE CLAMP
	THE FOLLOWING ITEMS ARE NOT SHOWN		
19	AE-OPT-0069		HAND BRAKE "ON" WARNING (OPTION)
20	AE-OPT-0069 SHUTDOWN		HAND BRAKE "ON" SHUTDOWN (OPTION)
21	275.12		BUZZ LITE FOR PARKING BRAKE
22	81008429		CONTACT PIN
23	82050000		PROXIMITY SENSOR
24	82066700		MOUNTING SCREW
25	332-209-150		RELAY
26	A-TT4-00250		NEUTRAL SAFETY SWITCH

STEERING SYSTEM

STEERING SYSTEM BREAKDOWN



STEERING SYSTEM

STEERING SYSTEM BREAKDOWN—DETAIL

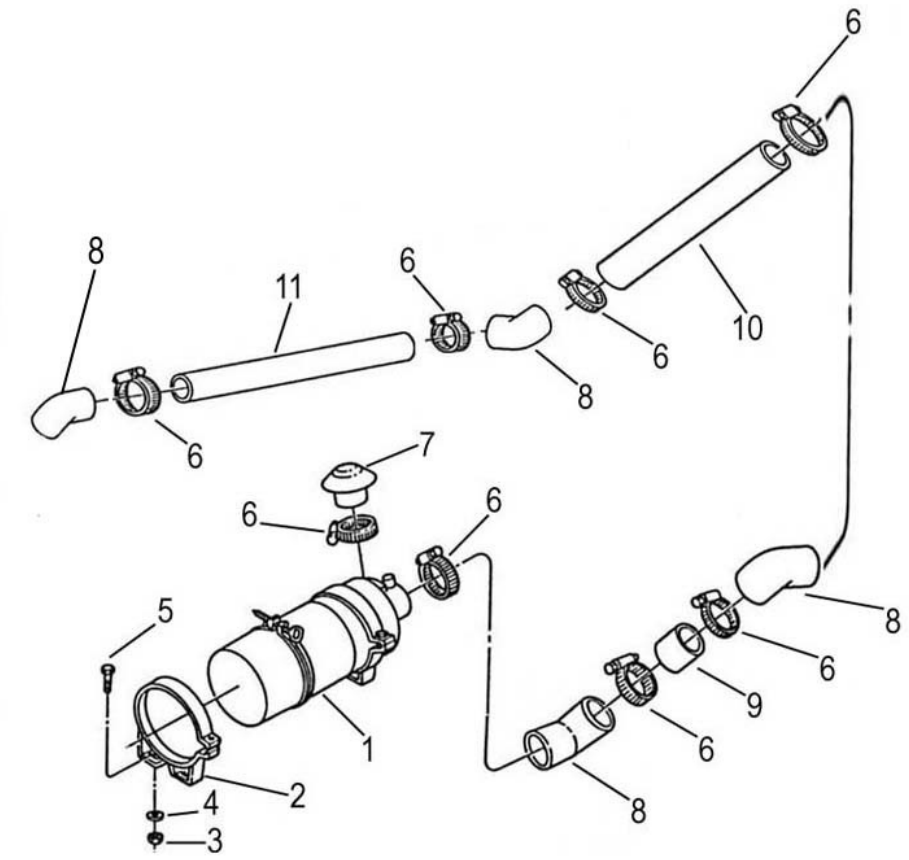
Item	Part Number	Qty	Description
1	A-TT4-00381	1	STEERING BOX
2	NPN	4	SCREW-HEX CAP-7/16-14 X 2 GR8
3	A-TT4-00382	1	PITTMAN ARM
4	NPN	1	WASHER-LOCK-3/4
5	NPN	1	NUT-LOW-3/4-10
6	A-TT4-00386	1	DRAG LINK
7	NPN*	2	COTTER PIN 1/8 X 1 ½
8	NPN*	2	NUT-TIE ROD ½-20
9	A-TT4-00389	1	UNIVERSAL COUPLER
10	A-TT4-00390	1	SHAFT COUPLING
11	A-TT4-00391	1	UNIVERSAL JOINT
12	NPN	2	LOCKING BOLT-DOG POINT 3/8-16
13	A-TT4-00393	4	GIBB KEY
14	A-TT4-00394-1	1	STEERING SHAFT
15	A-TT4-00395	2	BEARING
16	A-TT4-00396	2	2 1/8 U-BOLT 3/8HD
17	NPN**	4	WASHER-FLAT-5/16
18	NPN**	4	NUT-LOCK-5/16-18
19	A-TT4-00399-1	1	STEERING WHEEL
20	N/A	1	SCREW-HEX CAP-3/8-24 X 1
21	A-TT4-00401-1	1	COVER PLATE
22	A-TT4-00402	1	TIE ROD END L/H
23	A-TT4-00403	1	TIE ROD END R/H
24	A-TT4-00404	1	STEERING TUBE
25	A-TT4-00405	4	SPACERS
26	A-TT4-00406	1	3/4-16 NUT-JAM-L/H
27	A-TT4-00407	1	3/4-16 NUT-JAM-R/H
28	A-TT4-00212	1	HIGH PRESSURE EXTENDER
29	A-TT4-00204	1	RETURN LINE EXTENDER

* 7 & 8 NOT SOLD SEPARATELY - INCLUDED IN PART # 22 & 23

** PARTS INCLUDED IN PART # 16

AIR CLEANER

AIR CLEANER ASSEMBLY—DIESEL

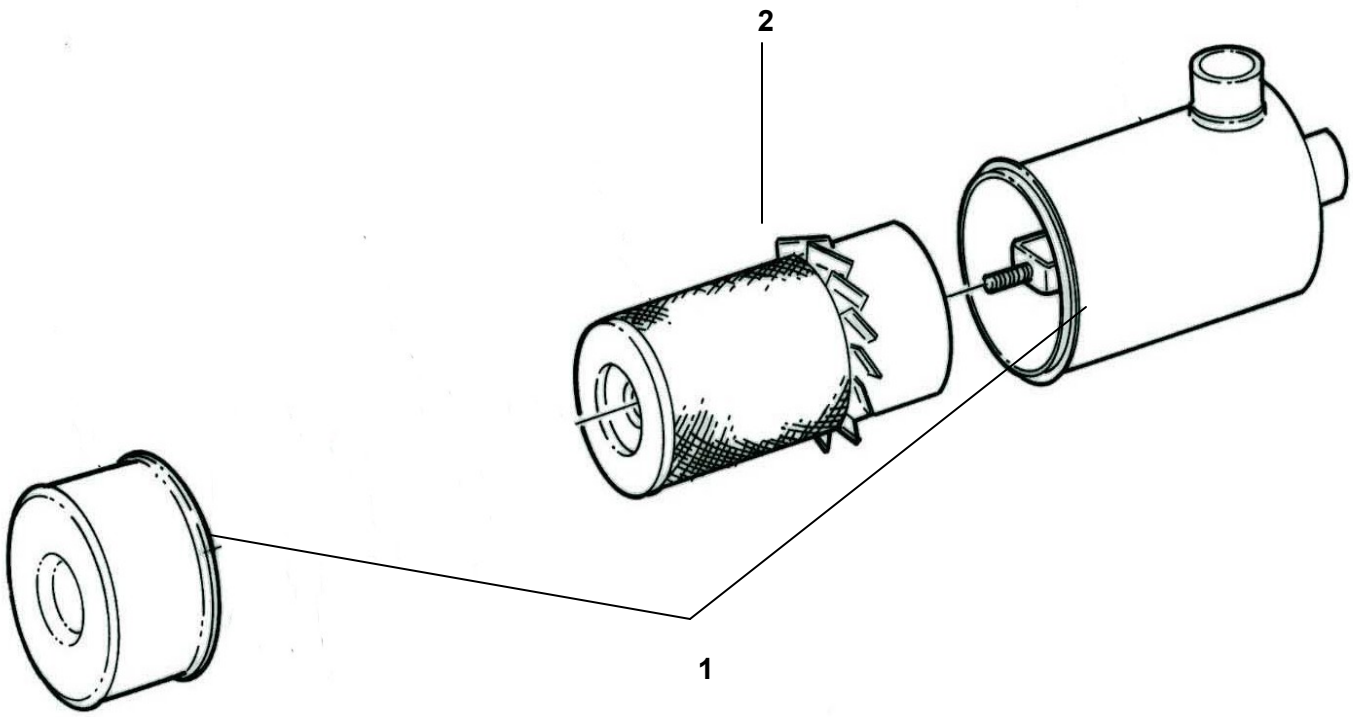


AIR CLEANER ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00091-1	1	AIR CLEANER ASSEMBLY 3"
1	A-TT4-00091	1	AIR CLEANER ASSEMBLY 2"
2	A-TT4-00092	2	AIR CLEANER BRACKET
3	NPN	4	NUT-LOCK 3/8-16
4	NPN	4	WASHER-FLAT 3/8
5	NPN	4	SCREW-HEX CAP 3/8-16 X 1 GR.5
6	NPN	10	HOSE CLAMPS
7	A-TT4-00098-1	1	RAIN CAP 3"
7	A-TT4-00098	1	RAIN CAP 2"
8	A-TT4-00094-3	4	45 DEGREE ELBOW
9	NPN	1	BULK-INTAKE TUBE - 3"
10	NPN	1	BULK-INTAKE TUBE - 17.5"
11	NPN	1	BULK-INTAKE TUBE - 16.5"

AIR CLEANER

AIR CLEANER SUB-ASSEMBLY

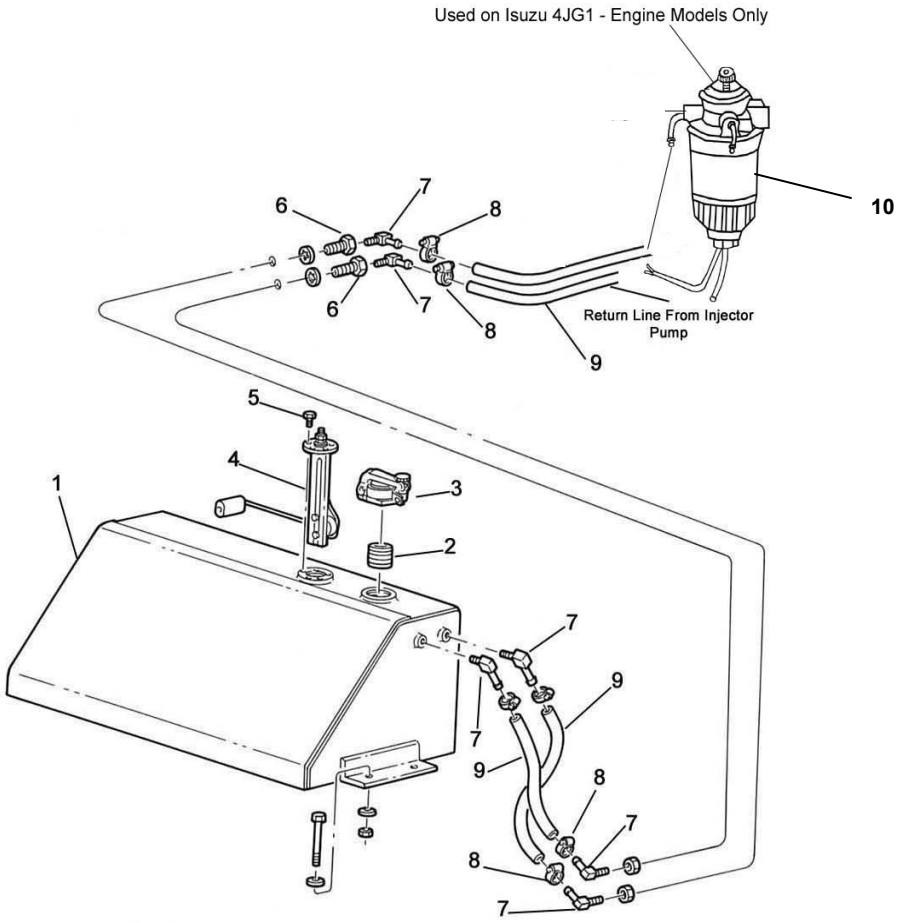


AIR CLEANER SUB-ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00091	1	AIR CLEANER 2"
	A-TT4-00091-1	1	AIR CLEANER 3"
2	P14-8966	1	AIR CLEANER ELEMENT 2"
	P549271	1	AIR CLEANER ELEMENT 3"

FUEL SYSTEM

FUEL SYSTEM—DIESEL

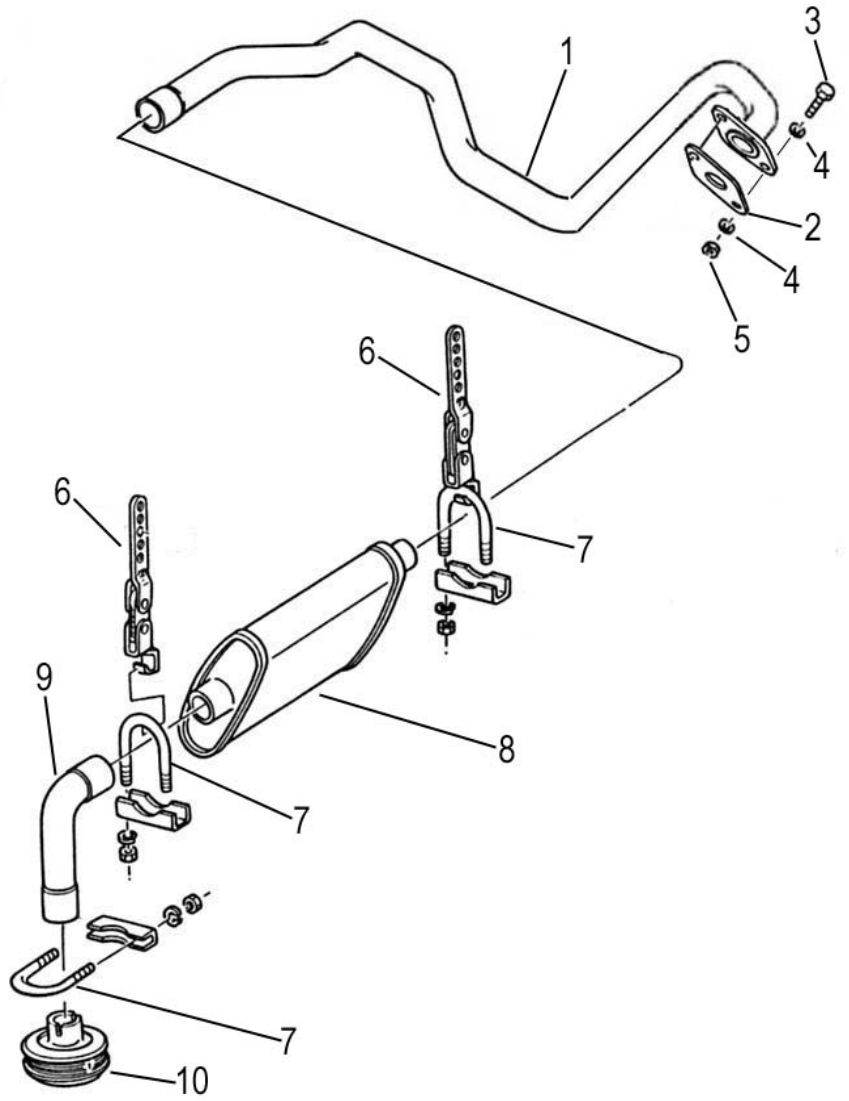


FUEL SYSTEM—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00273	1	FUEL TANK
2	A-TT4-00272	1	NIPPLE
3	A-TT4-00271-1	1	FUEL CAP
4	A-TT4-00276	1	FUEL SENDING UNIT
5	NPN	8	SCREW-HEX CAP-10-32 X3/4
6	A-TT4-00280	2	BULK HEAD FITTING
7	A-TT4-00274	6	90 DEGREE ELBOW FITTING
8	NPN	6	HOSE CLAMP
9	NPN	2	BULK-5/16 FUEL LINE
NS	8-94414-796-3	1	FUEL FILTER ELEMENT (4JB1 ENGINE ONLY)
10	897213-4720	1	FUEL FILTER ELEMENT (4JG1 ENGINE ONLY)

EXHAUST

EXHAUST SYSTEM– DIESEL

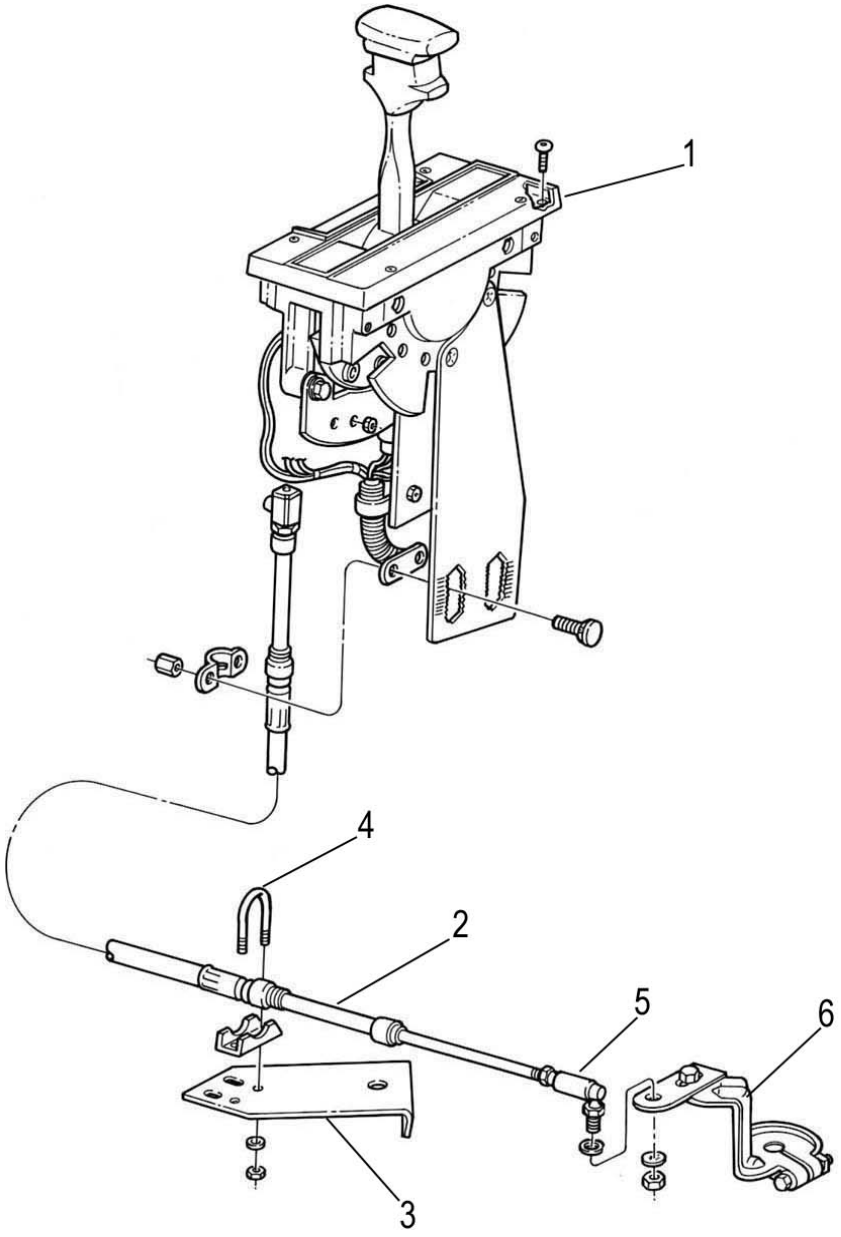


EXHAUST SYSTEM—DETAIL

Item	Part Number	Qty	Description
1	A-TT4D-00253-2	1	DIESEL EXHAUST PIPE
2	A-TT12-00251	1	EXHAUST GASKET
3	NPN	2	SCREW-HEX-CAP 3/8-16 X 1-1/4
4	NPN	2	WASHER FLAT 3/8
5	NPN	2	NUT-HEX 3/8-10
6	A-TT4-00260	2	PIPE HANGER
7	A-TT4-00254	3	2″ MUFFLER CLAMPS
8	A-TT4-00258-1	1	MUFFLER
9	A-TT4-00259-1	1	90 DEGREE TAIL PIPE
10	AE-OPT-0059-RETAIL	1	SPARK ARRESTER (OPTION)
11	AE-OPT-0059	1	SPARK ARRESTING MUFFLER (OPTION)
12	AE-OPT-0029	1	DIESEL SCRUBBER (OPTION)

OPERATOR COMPARTMENT

TRANSMISSION CONTROL

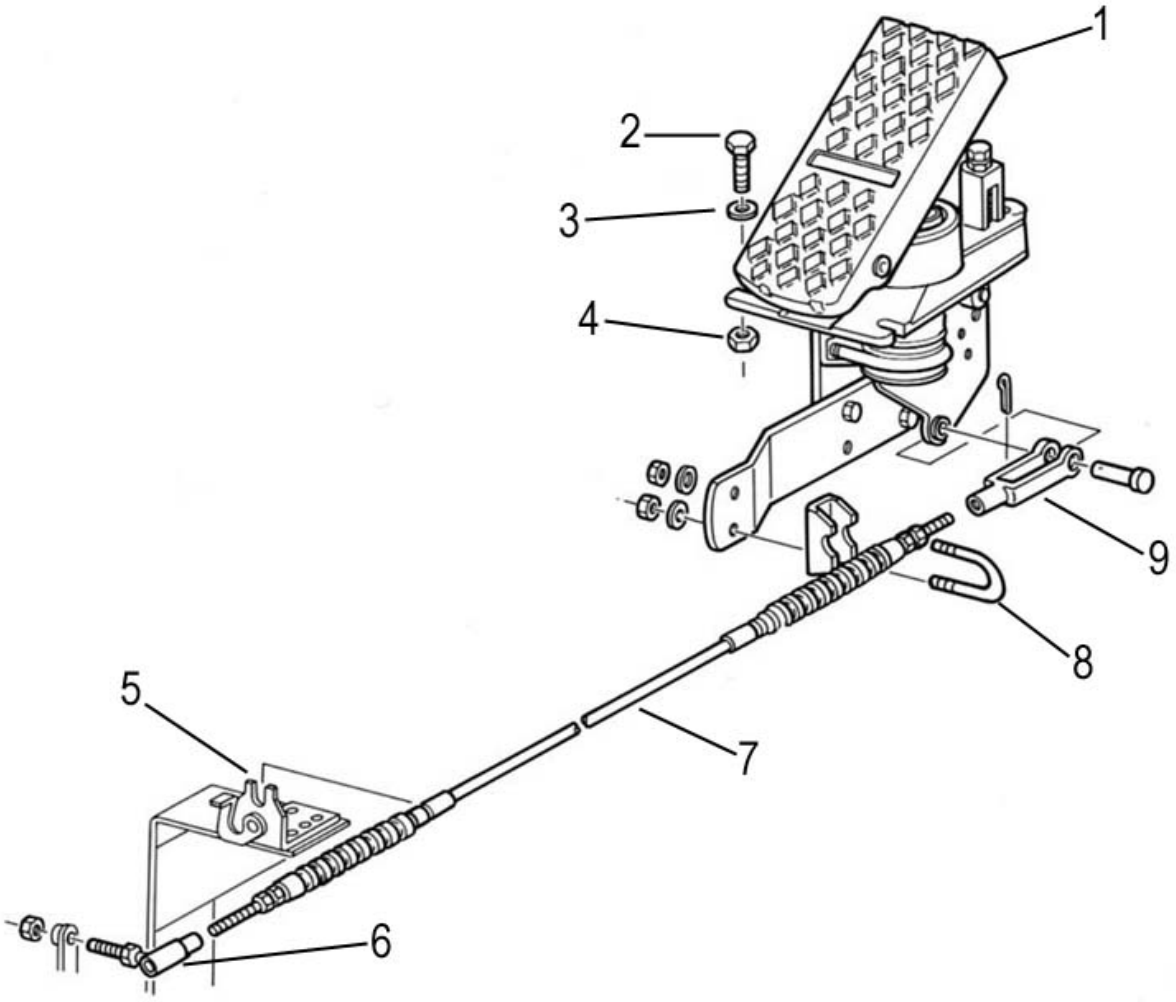


TRANSMISSION CONTROL—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00245	1	TRANSMISSION SHIFT CONTROL
2	A-TT4-00246	1	TRANSMISSION SHIFT CABLE
3	A-TT4-00248	1	TRANSMISSION CABLE BRACKET ASSEMBLY
4	A-TT4-00247	1	U-BOLT KIT
5	A-TT4-00249	1	BALL JOINT KIT
6	A-TT4-00419	1	TRANSMISSION LEVER
7	302008	1	INDICATOR STRIP REPAIR KIT(NOT SHOWN)
8	302348	1	HANDLE REPAIR KIT(NOT SHOWN)

OPERATOR COMPARTMENT

ACCELERATOR PEDAL ASSEMBLY

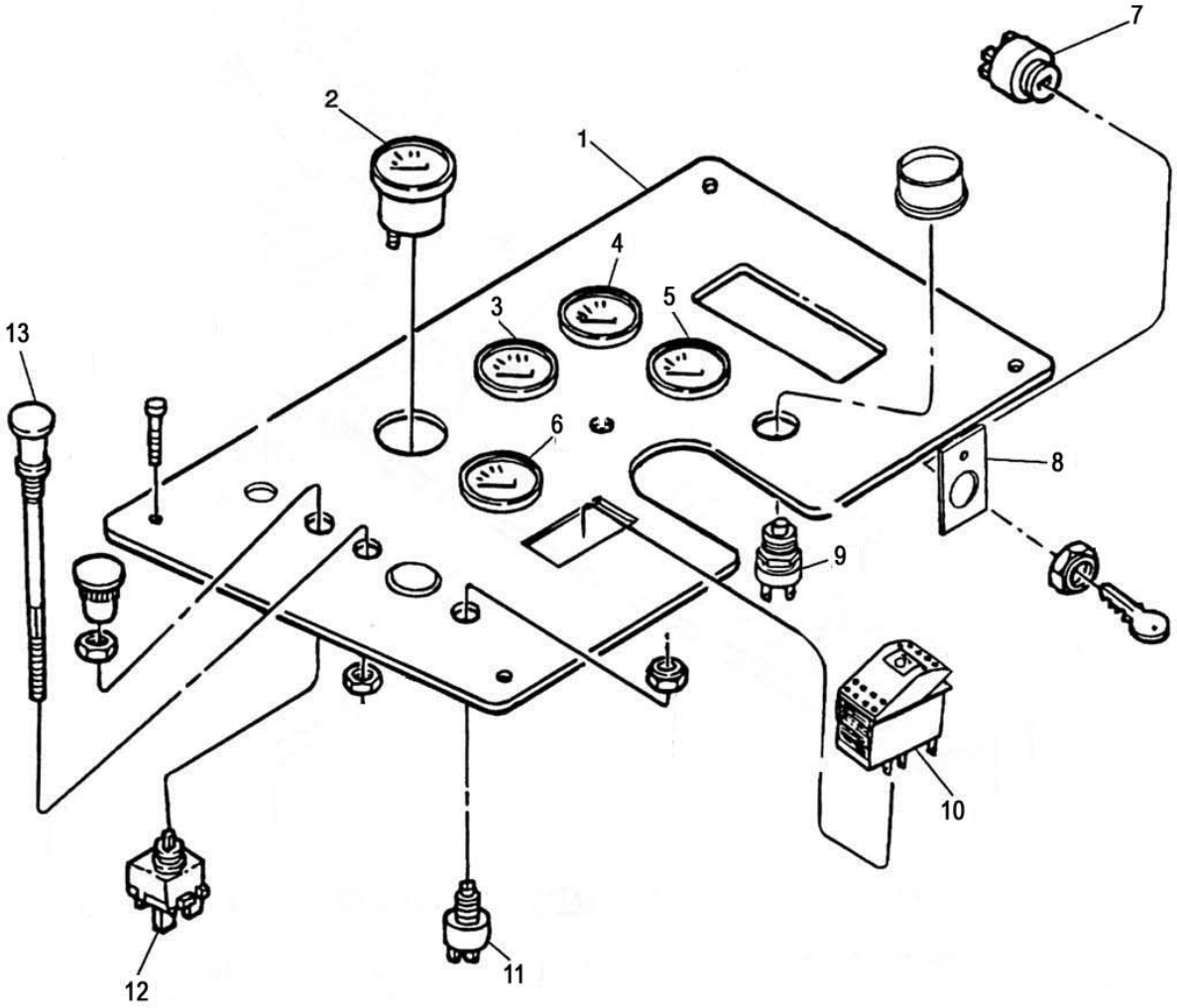


ACCELERATOR PEDAL ASSEMBLY—DETAIL

ITEM	PART NUMBER	QTY.	DESCRIPTION
1	A-TT4-00281-1	1	FOOT PEDAL ASSEMBLY
2	NPN	3	SCREW-HEX CAP-1/4-20 X 1.00 G8
3	NPN	3	WASHER-FLAT-1/4
4	NPN	3	NUT-LOCK-1/4-20
5	A-TT4-00285*	1*	CABLE CLASP*
6	A-TT4-00287	1	BALL JOINT KIT - NUT INCLUDED
7	A-TT4-00282	1	ACCELERATOR CABLE
8	A-TT4-00288	1	ACCELERATOR U-BOLT KIT
9	A-TT4-00283-1	1	ACCELERATOR CLEVIS-PIN KIT
*CLASP MUST BE WELDED TO BRACKET			

OPERATOR COMPARTMENT

INSTRUMENT PANEL



OPERATOR COMPARTMENT

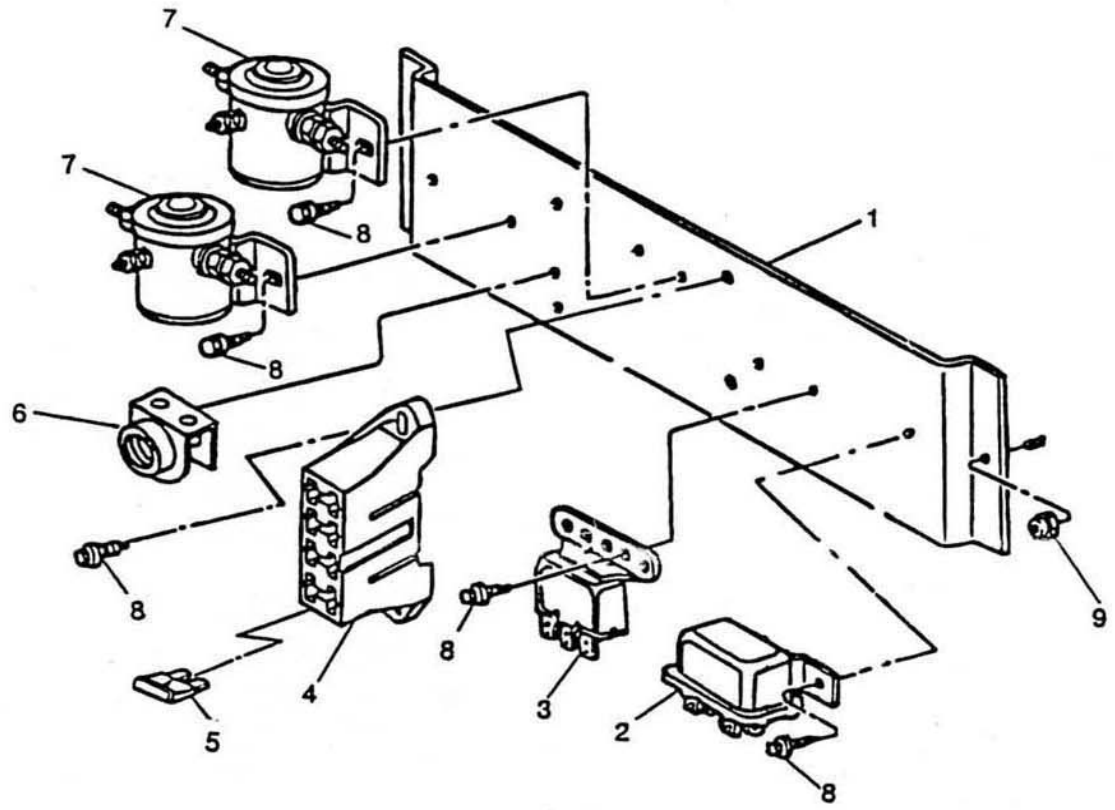
INSTRUMENT PANEL—DETAIL

Item	Part Number	Qty	Description
1	C-TT4-00411	1	DASH PANEL (NO INSTRUMENTS)
2	A-TT4-00412	1	OIL PRESSURE GAUGE
3	A-TT4-00415	1	FUEL GAUGE
4	A-TT4-00416	1	VOLT-AMP GAUGE
5	A-TT4-00417	1	TEMP GAUGE
6	A-TT4-00418	1	HOUR METER
7	A-TT4-00422-2	1	IGNITION SWITCH (KEYED OPTION)
7	A-TT4-00422-3	1	IGNITION SWITCH (KEYLESS OPTION)
8	A-TT6-0015-1	1	PLATE, MOUNTING IGNITION SWITCH
9	TMD27M00200	1	GLOW PLUG SWITCH
10	A-TT4-00423-1	1	HEAD LIGHT SWITCH
11	A-TT4-00428	1	HORN BUTTON
12	A-TT4-00609	1	HEATER FAN SWITCH
13	A-TT4-00608	1	TEMPERATURE CONTROL CABLE
NS	A-TT4-00434-1	1	WIRE HARNESS (DASH ONLY)
NS	A-TT4-00435-1	1	80 AMP CIRCUIT BREAKER
NS	AE-OPT-0084	1	AMMETER(OPTION)
NS	AE-OPT-00152	1	TRANSMISSION FLUID TEMP
	The following optional items are NOT SHOWN		
14	AE-OPT-0080	1	HI TEMP-LO OIL SHUTDOWN (OPTION)
15	9B3215	1	SHUTDOWN MODULE
16	275-1	1	LOW OIL BUZZ LITE
17	275-2	1	HI TEMP BUZZ LITE
18	8611931F	2	LENS COVER BUZZ LITES

NOTES:

LIGHTS & ELECTRICAL

ELECTRICAL BOARD

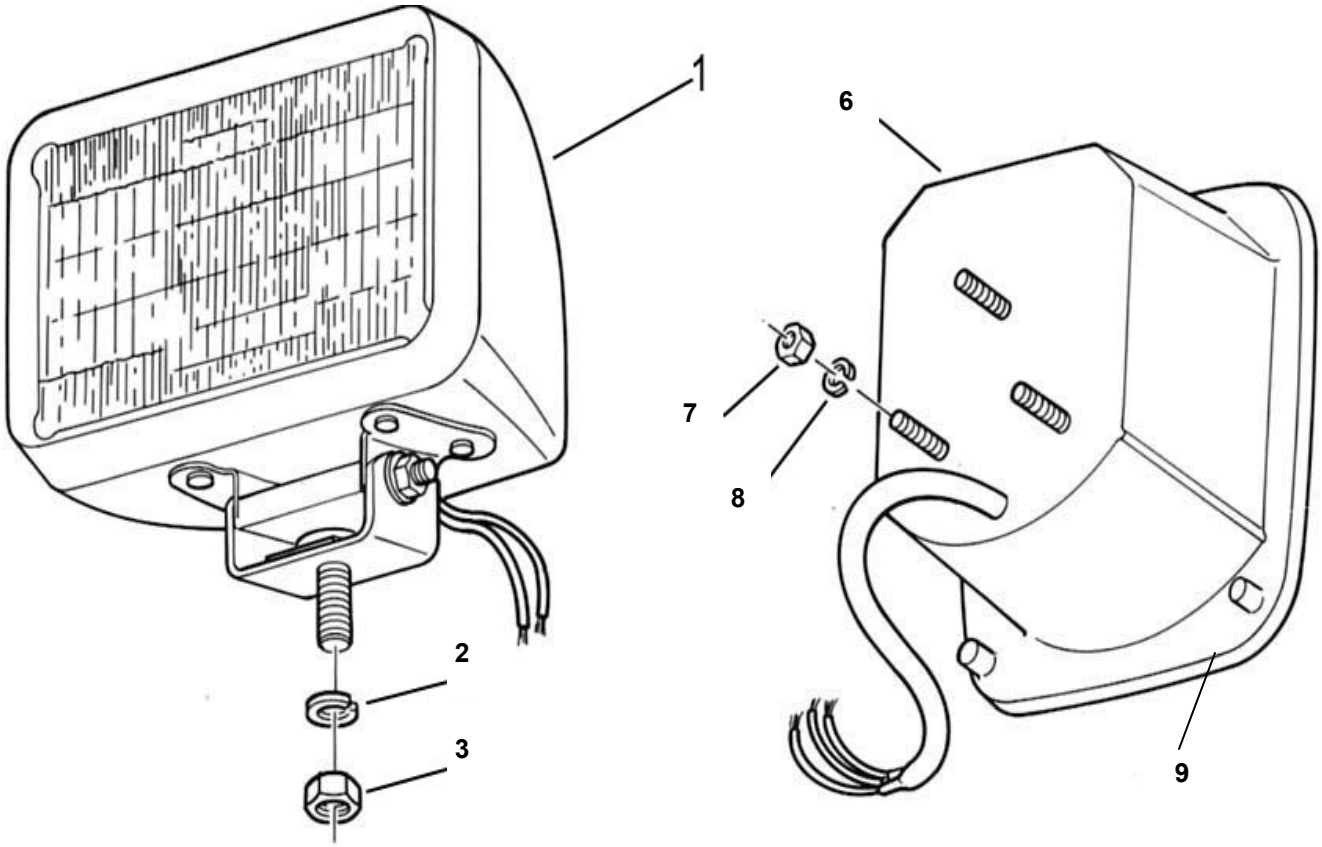


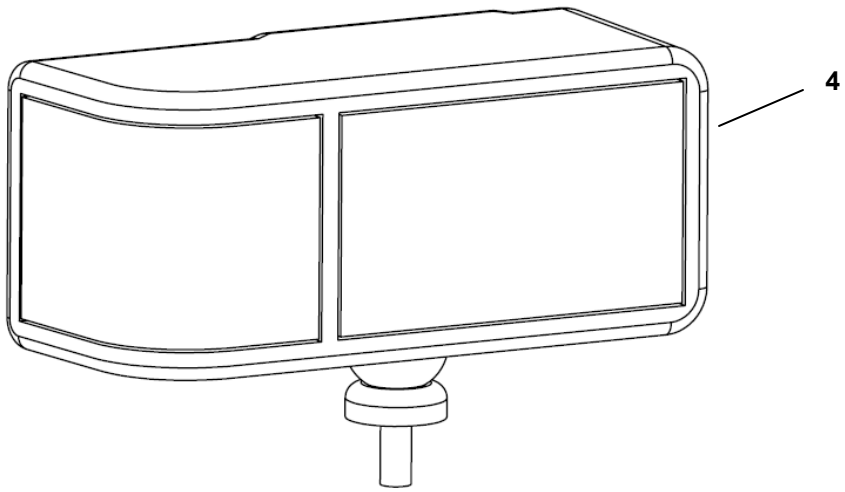
ELECTRICAL BOARD—DETAIL

Item	Part Number	Qty	Description
1	B-TT4-00301	1	MOUNTING BRACKET
2	A-TT4-00302	1	STARTER RELAY
3	A-TT4-00303-1	1	HORN RELAY
4	A-TT4-00307	1	FUSE BLOCK-SPADE TYPE
5	A-TT4-00309	4	FUSE (25 AMP)
6	98253-00410	1	GLOW PLUG REISITER
7	A-TT4-00308	2	RELAY
8	NPN	10	SELF DRILLING SCREWS
9	NPN	2	LOCK NUT 10-32

LIGHTS & ELECTRICAL

HEADLIGHT & TAILLIGHT ASSEMBLY





LIGHTS & ELECTRICAL

HEADLIGHT & REAR SPOT LIGHT ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	A-TT10-00291	2	HEADLIGHT
2	NPN	2	NUT-1/2-13
3	NPN	6	NUT-1/4-20
4A	AE-OPT-0075-1 (TEAR DROP STYLE)	2	HEADLIGHT WITH TURN SIGNAL (OPTION)
4B	A-TT4-00291-6 (RETANGULAR STYLE)	2	HEADLIGHT WITH TURN SIGNAL (OPTION)
5	A-TT4-00291-5 (NOT SHOWN)	1	REAR FACING SPOT LIGHT

TAILLIGHT ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
6	A-TT4-00292	2	TAILLIGHT
7	NPN	2	WASHER-FLAT-1/2
8	NPN	6	WASHER-FLAT-1/4
9	73-1912		TAIL LENS COVER

REPLACEMENT BULBS

Item	Part Number	Qty	Description
10	H4		REPL BULB ITEMS 1 AND 4A
11	H3		REPL BULB ITEM 5
12	1157		REPL BULB BRAKE LIGHT ITEM 6 & TURN SIGNAL ITEM 4B
13	1156		REPL BULB REVERSE LIGHT ITEM 6
14	3157 NA		REPL BULB TURN SIGNAL ITEM 4
15	H6545		SEALED BEAM FOR ITEM 4B

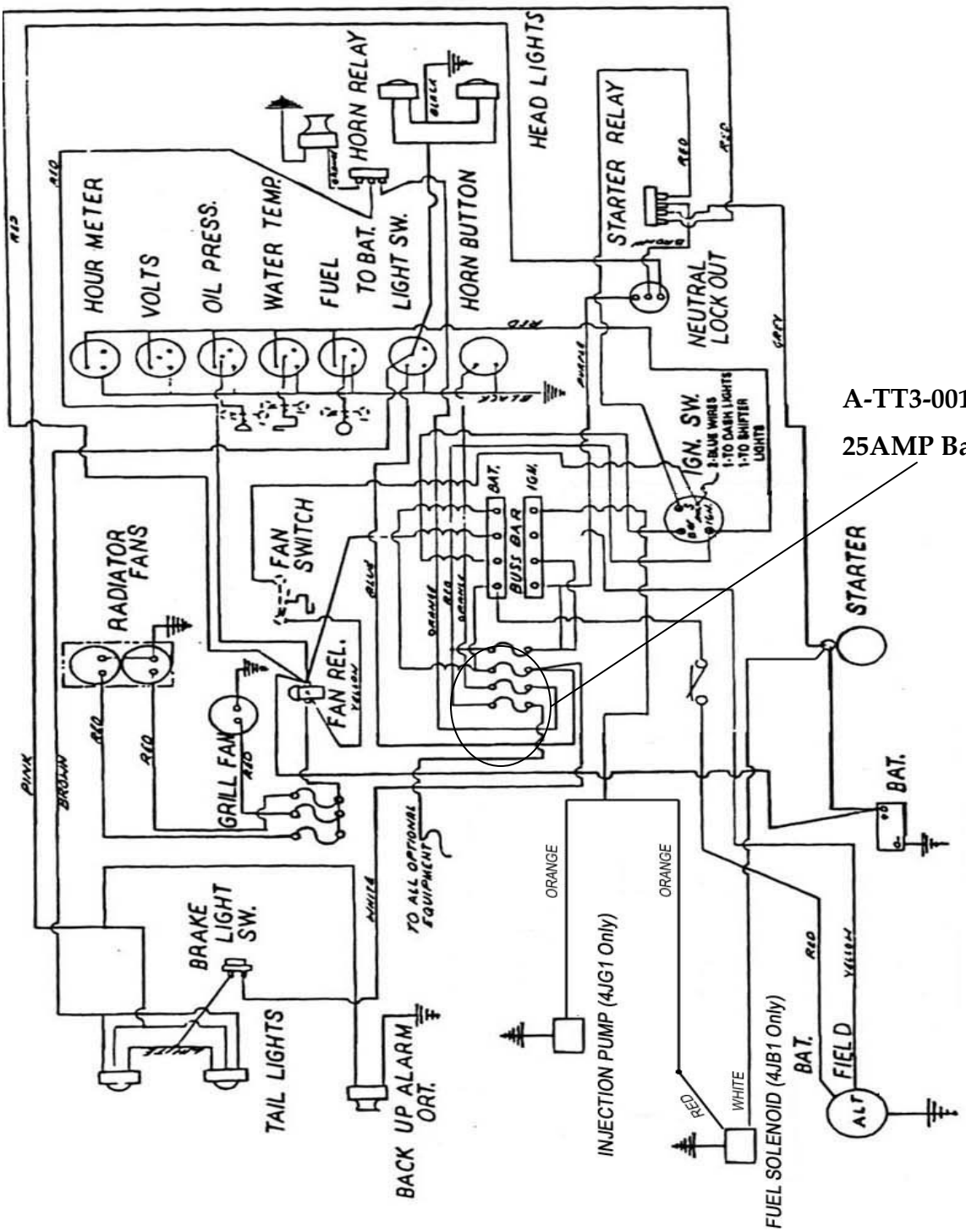
OPTIONS NOT SHOWN

Item	Part Number	Qty	Description
16	AE-OPT-0076	2	ROOF MOUNTED TURN SIGNAL LAMP

**DUE TO ENGINEERING IMPROVEMENTS YOU MAY HAVE HEADLIGHTS OTHER THAT THE ONES LISTED*

LIGHTS & ELECTRICAL

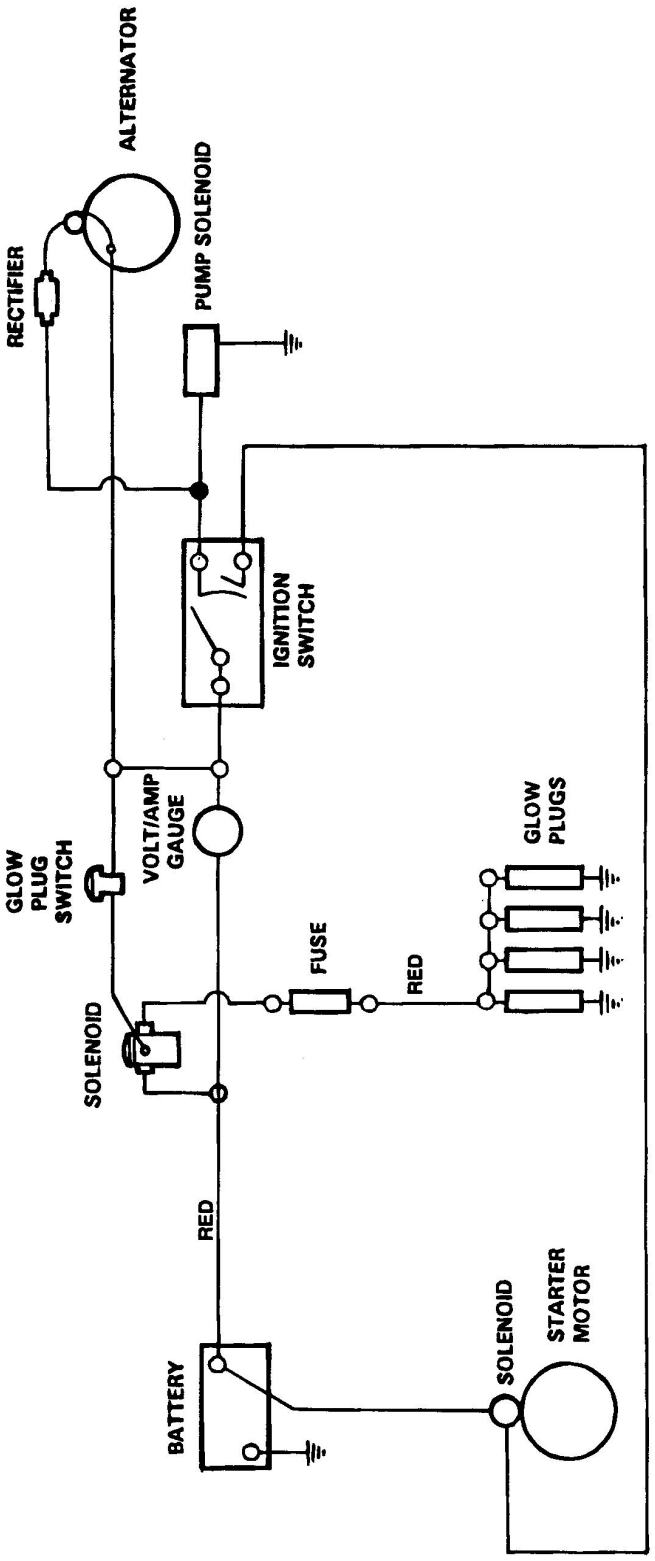
WIRING HARNESS



Item	Part Number	Qty	Description
1	AB-TT5D-00560-4	1	WIRE HARNESS
2	A-TT4-00434-1	1	UNDER DASH WIRE HARNESS

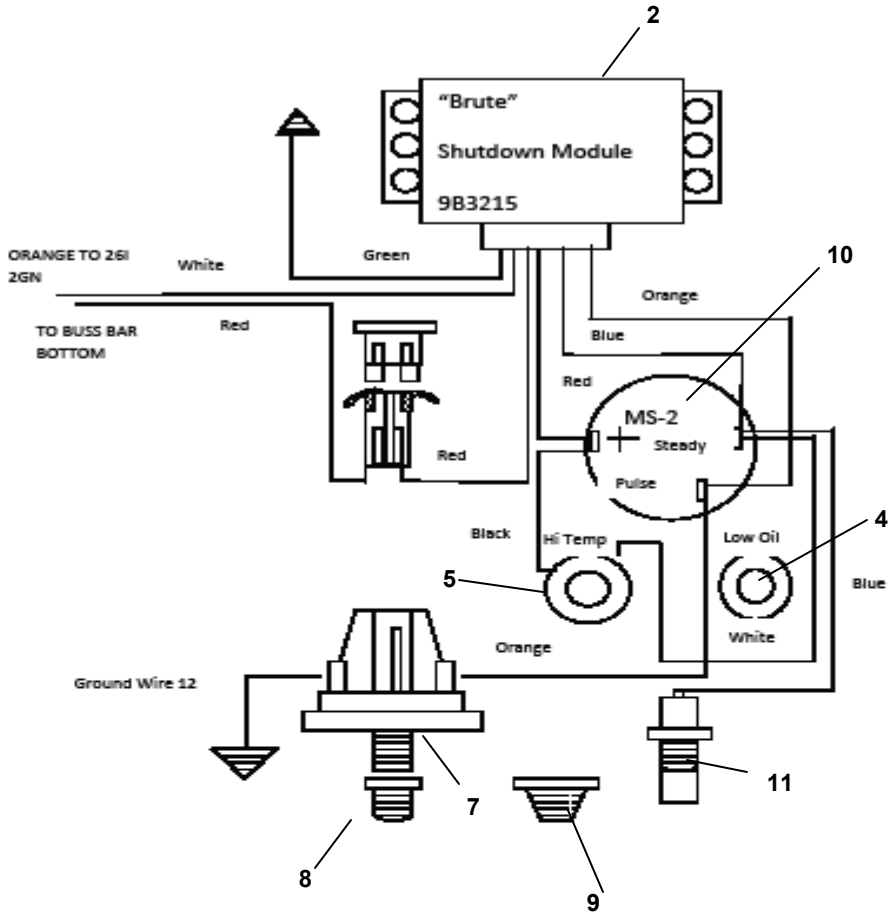
LIGHTS & ELECTRICAL

WIRING SCHEMATIC



LIGHTS & ELECTRICAL

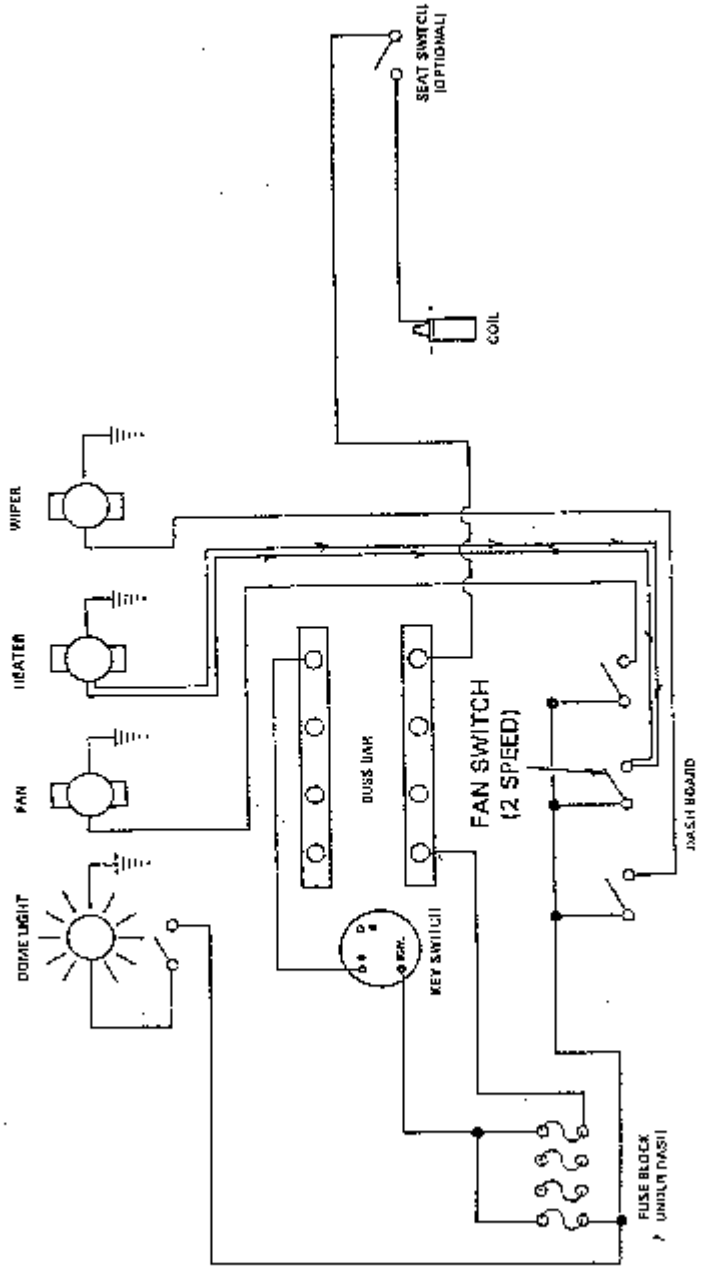
SHUTDOWN OPTION WIRING



Item	Part Number	Qty	Description
1a	AE-OPT-0080(COMPLETE ASSY)	1	LOW OIL/HI TEMP SHUTDOWN DIESEL ENG
1b	AE-OPT-0081-1(COMPLETE ASSY)	1	LOW OIL/HI TEMP SHUTDOWN GASOLINE
2	9B3215	1	SHUTDOWN MODULE
3	W2007.01	1	WIRE HARNESS
4	861193F	1	OIL PRESSURE LIGHT
5	8609331F	1	TEMPERATURE LIGHT
6	1215	2	LENS COVER SHROUD(NOT SHOWN)
7	H1004	1	PRESSURE SWITCH
8	3750202	1	1/8 MALE/FEMALE ADAPTER(NOT SHOWN)
9	3730402	1	1/4 X 1/8 ADAPTER

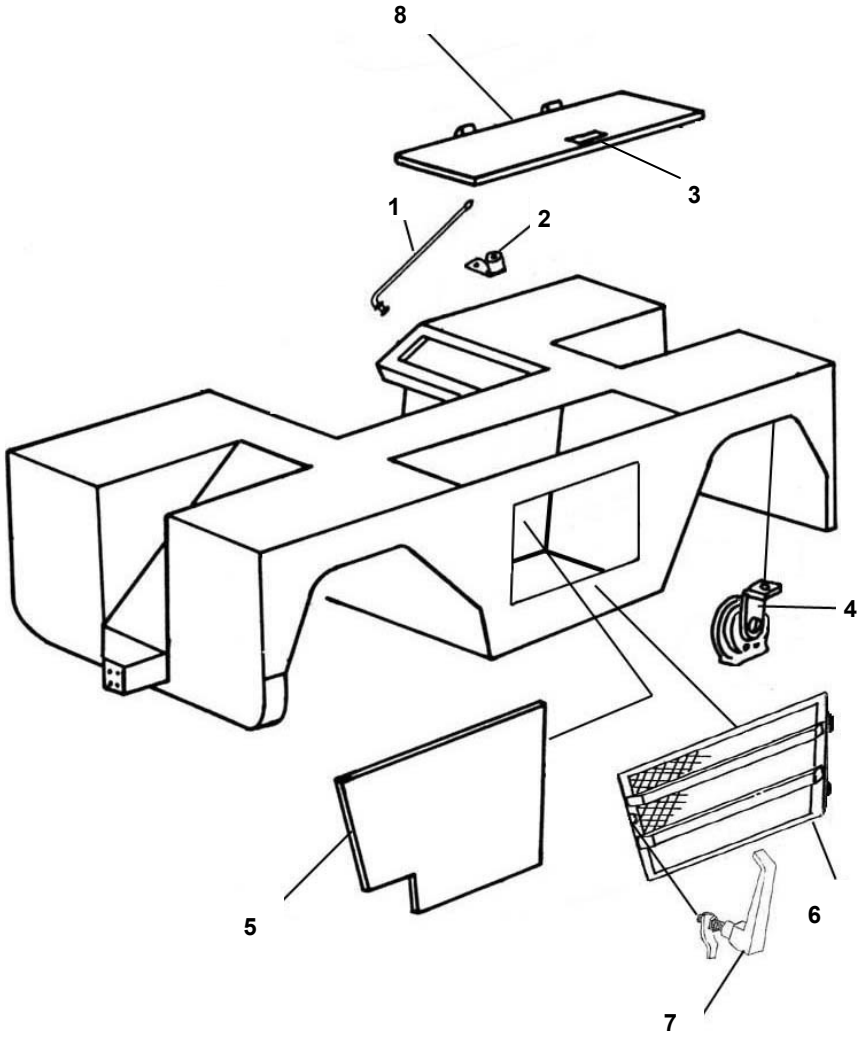
LIGHTS & ELECTRICAL

CAB OPTION WIRING



OTHER ASSEMBLY

BODY ASSEMBLY

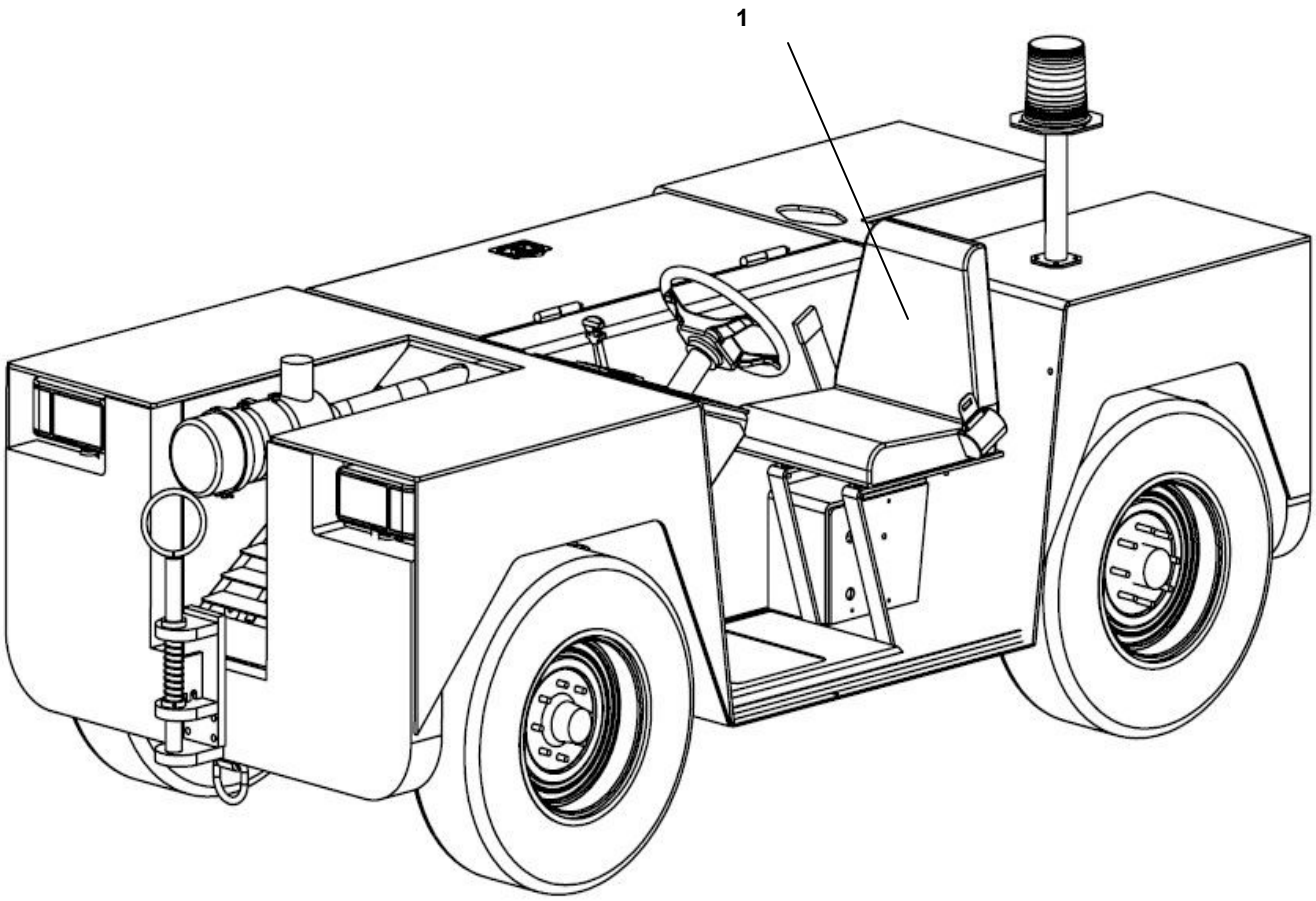


BODY ASSEMBLY –DETAIL

Item	Part Number	Qty	Description
1	NPN	1	HOOD PROP
2	NPN	1	HOOD PROP ASSEMBLY
3	C-TT4-0012-2	1	T-HANDLE LATCH
3	C-TT4-0012-3	1	LOCKING T-HANDLE LATCH
4	A-TT4-0052	1	HORN ASSEMBLY
5	A-TT4-0049	1	HEAT SHIELD
6	D-TT4-0009-1	1	GRILL GUARD/ACCESS DOOR
7	62-10-603-20	1	LATCH FOR ACCESS DOOR
8	C-TT4-0012	1	HOOD

OTHER ASSEMBLY

SEATS

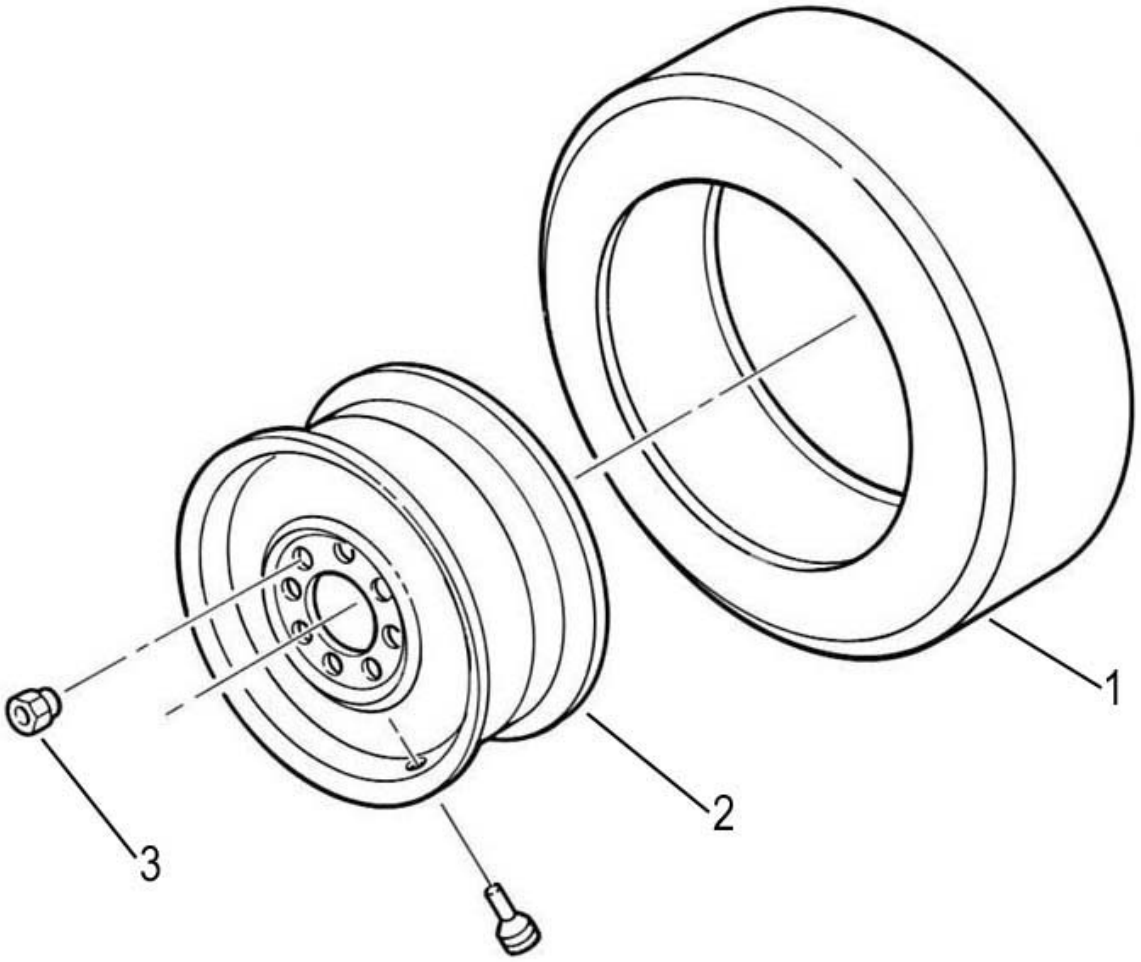


SEAT ASSEMBLY –DETAIL

Item	Part Number	Qty	Description
1	A-TT4-0048-1	1	STANDARD SEAT
2	AE-OPT-0055-A	1	STANDARD SEAT BOTTOM CUSHION
3	AE-OPT-0090	1	STAND
3	A-TT10-00048	1	BENCH SEAT (DUAL REAR WHEEL MODELS)
4	AE-OPT-0055-B	1	BENCH SEAT BACK CUSHION
5	AE-OPT-0055-C		BENCH SEAT BOTTOM CUSHION
6	AE-OPT-0183	1	BENCH SEAT WITH KILL SWITCH (OPTION)
7	E10000	1	SEAT BELT

WHEELS & TIRES

WHEEL & TIRE ASSEMBLY



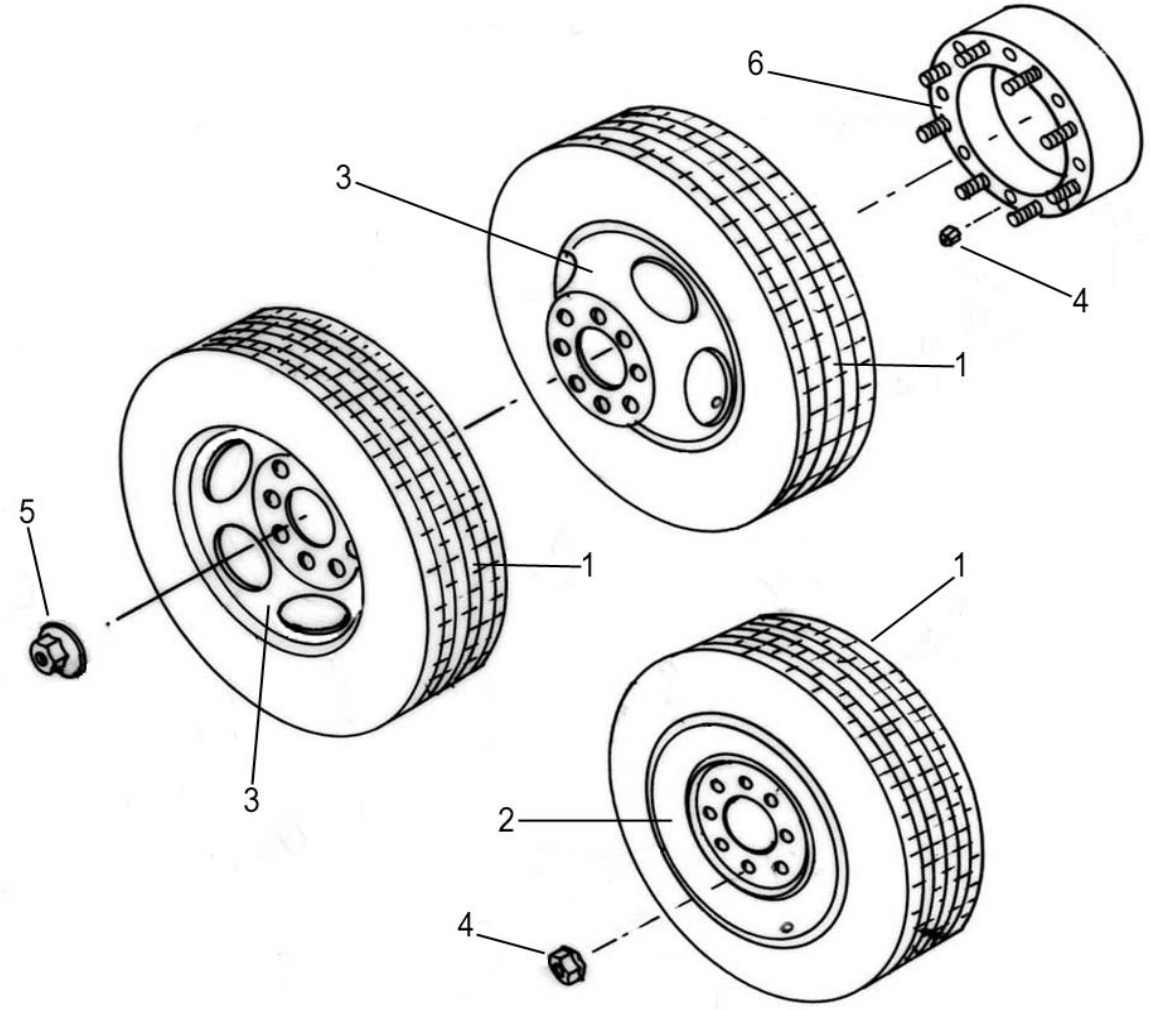
WHEEL & TIRE ASSEMBLY—DETAIL

Item	Part Number	Qty	Description
1	A-TT4-00121	4	STANDARD TIRE 16.5"
2	A-TT4-00122	4	STANDARD RIM
1	A-TT8/2-00121-1	4	TIRE 16"
2	A-TT4-00122-1	4	RIM 16"
3	A-TT4-00123	32	LUG NUT
*	AE-OPT-0068	4	SNOW TIRE (OPTION)

* All current models now equipped with standard 16″ tire & rim

WHEELS & TIRES

WHEEL & TIRE ASSEMBLY—DUAL REAR WHEEL MODELS

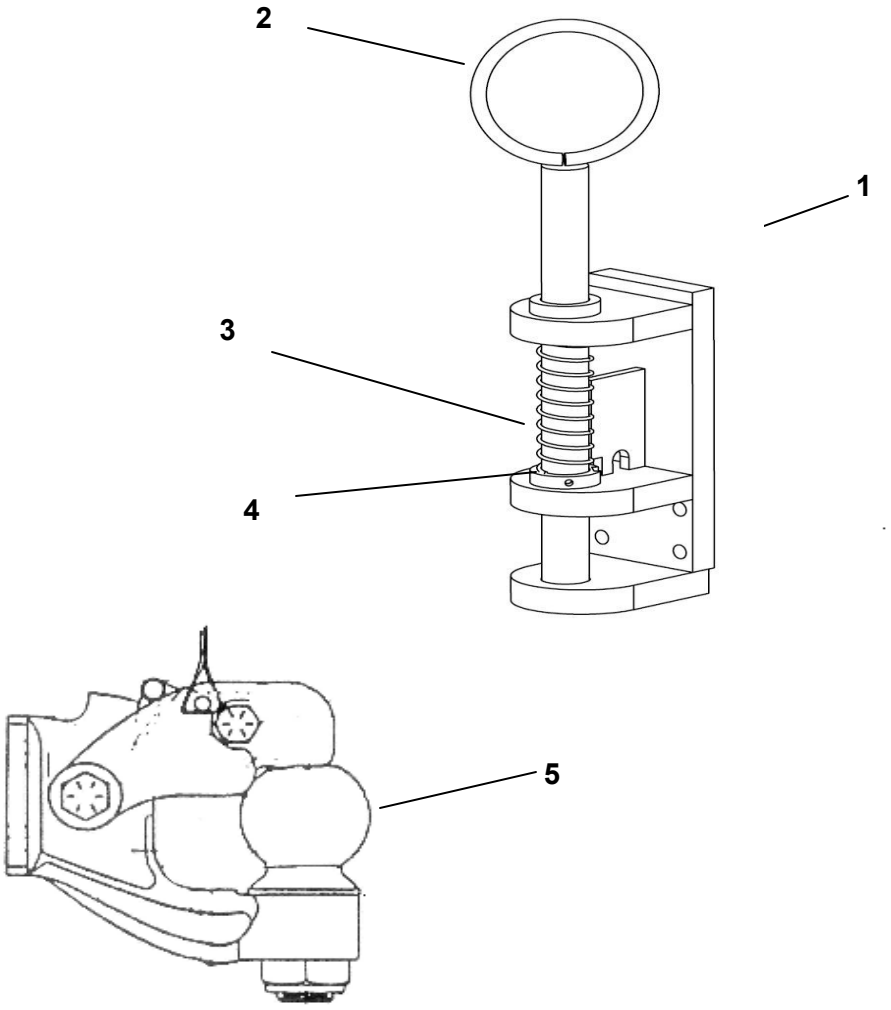


WHEEL & TIRE ASSEMBLY—DUAL REAR WHEEL MODELS—DETAIL

Item	Part Number	Qty	Description
1	A-TT8/2-00121-1	6	STANDARD TIRE 16"
2	A-TT8/2-00122	2	RIM-FRONT
3	A-TT8/2-00126	4	RIM-REAR
4	A-TT4-00123	32	LUG NUT
5	A-TT8/2-00123	16	WHEEL LUG NUT
6	A-TT8/2-00127	2	WHEEL ADAPTER

OPTIONS

HITCH OPTIONS



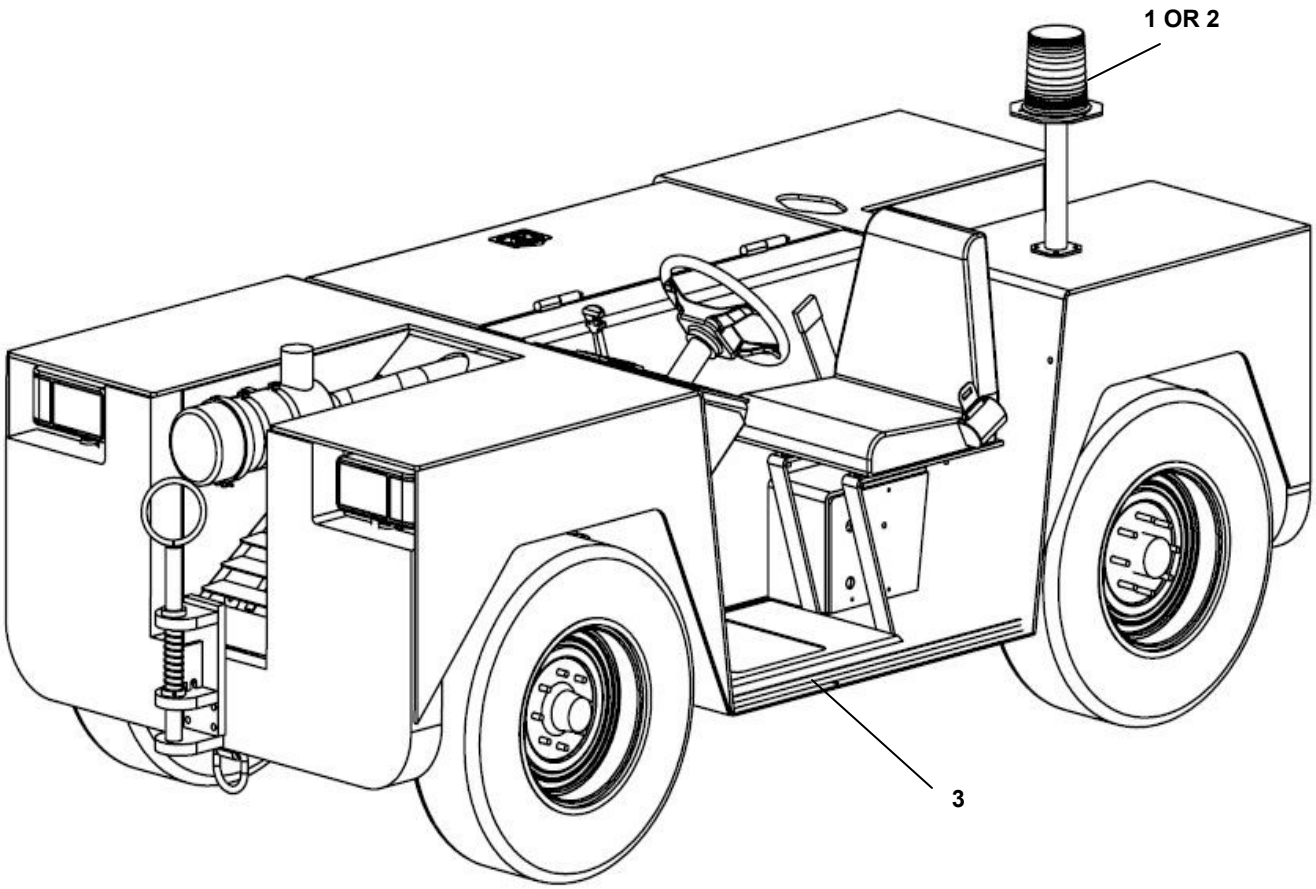
HITCH OPTION—DETAIL

Item	Part Number	Qty	Description
1	AE-OPT-0033	1	E-HITCH 1 1/2 " PIN-COMPLETE ASSEMBLY
2	B-TT3-0008 DET2	1	E-HITCH GUIDE 1 1/2" GUIDE PIN WITH RING
3	B-TT3-0008A	1	E-HITCH SPRING
4	B-TT3-0008 DET5	1	LOCKING COLLAR
5	AE-OPT-0028	1	PINTLE HOOK
6	AE-OPT-0026	1	AIRLINE HITCH 3" PIN WITH CABLE(NOT SHOWN)
7	AE-OPT-0093	1	AIRLINE HITCH 2 3/8" PIN (NOT SHOWN)

* The above are standard hitch options. Please call for special hitch options information

OPTIONS

STROBE, BEACON & FLOOR MAT OPTIONS

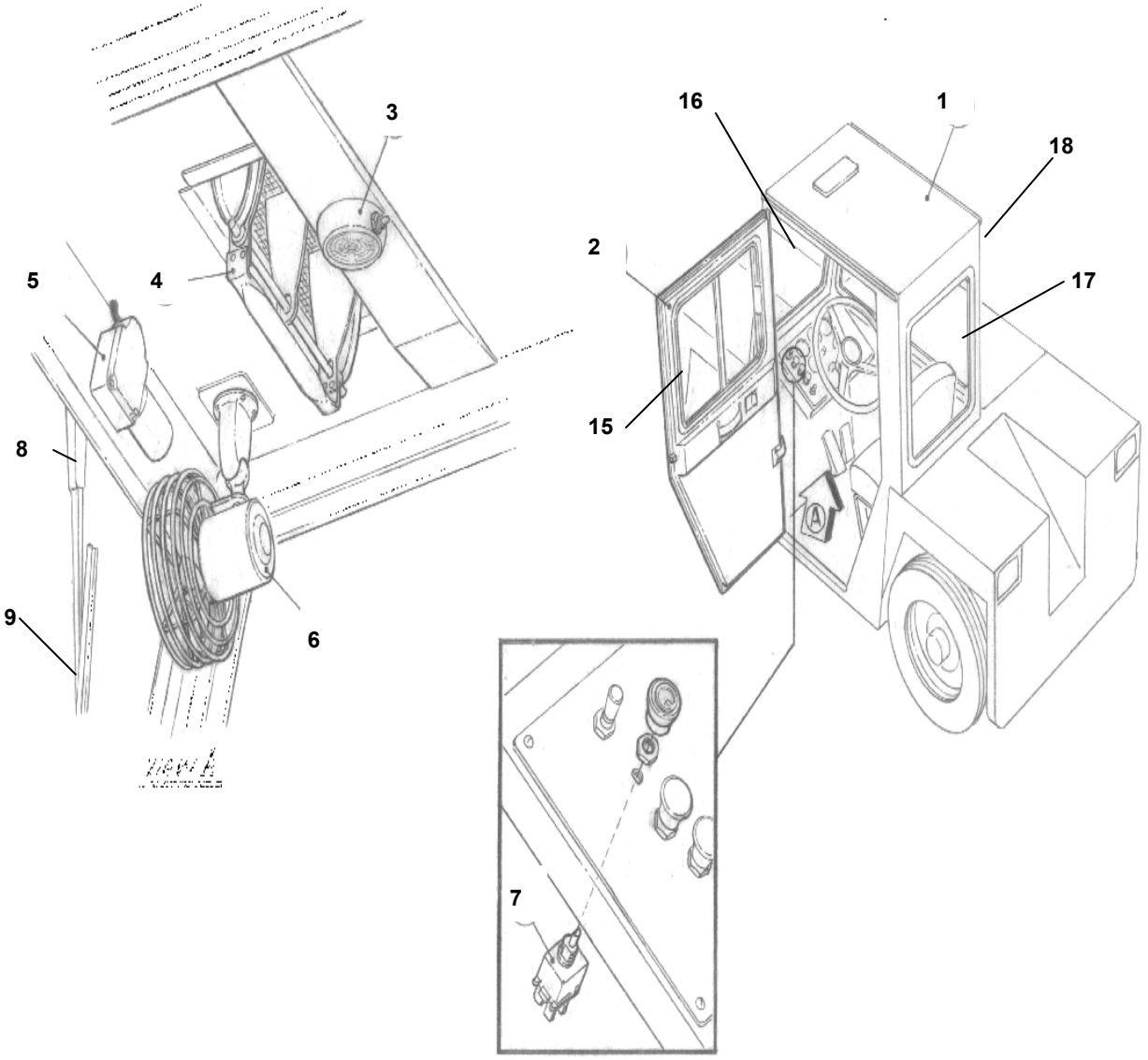


STROBE, BEACON & FLOOR MAT OPTION—DETAIL

Item	Part Number	Qty	Description
1	AE-OPT-0002	1	AMBER ROTATING BEACON
1A	R5024BH	1	REPLACEMENT BULB 24VDC
1B	R5012BH	1	REPLACEMENT BULB 12VDC
2	AE-OPT-0007	1	STROBE
2A	129	1	REPLACEMENT BULB FOR STROBE
2B	AE-OPT-0009	1	1/2 COVER FOR STROBE
3	A-TT4-00450	1	BASIC FLOOR MAT(NO SENSOR)
3A	A-TT4-00450-1	1	OPERATOR SWITCH MAT (WITH SENSOR)
3B	A-TT10-00451	1	SWITCHMAT DELAY TIMER

OPTIONS

CAB OPTION



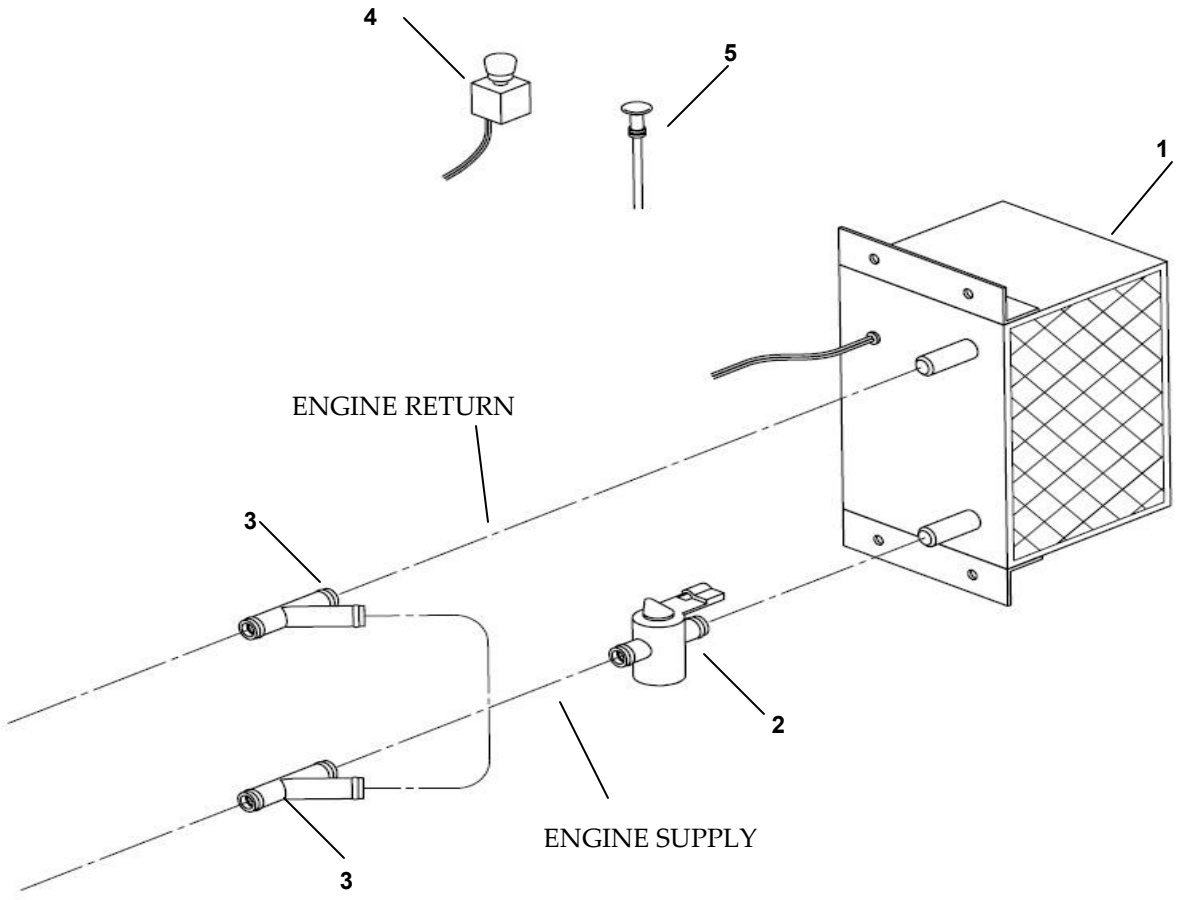
OPTIONS

CAB OPTION DETAIL

Item	Part Number	Qty	Description
1	AE-OPT-0004	1	CAB ASSEMBLY COMPLETE
1	AE-OPT-0003		CAB ASSEMBLY COMPLETE (DUAL REAR WHEEL MODEL)
2	40502	1	DOOR ASSEMBLY COMPLETE
3	A-TT4-00553	1	DOME LITE
4	A-TT4-00554	1	ROOF VENT
5	A-TT4-00555	1	WIPER MOTOR
6	A-TT4-00556	1	DEFROST FAN
7	A-TT4-00609	1	HEATER FAN SWITCH
8	991013	1	WIPER ARM
9	990994	1	WIPER BLADE
10	40516	3	DOOR HINGE
11	40515	1	STRIKER PLATE
12	48717	1	INSIDE DOOR HANDLE
13	990237	1	OUTSIDE DOOR HANDLE
14	991529	2	DOOR STRAP
15	992518	1	DOOR WINDOW
16	992424	1	WINDSHEILD
16	992520		WINDSHEILD (DUAL REAR WHEEL MODEL)
17	991867	1	REAR WINDOW
17	992521		REAR WINDOW (DUAL REAR WHEEL

OPTIONS

CAB HEATER DETAIL



Item	Part Number	Qty	Description
1	A-TT4-00601	1	HEATER ASSEMBLY
2	A-TT4-00607D	1	CONTROL VALVE
3	02220200A	2	Y CONNECTOR
4	A-TT4-00609	1	HEATER FAN SWITCH
5	A-TT4-00608	1	TEMPERATURE CONTROL CABLE
6	NPN	2	5/8 HEATER HOSE (NOT SHOWN)

OPTIONS

OTHER OPTIONS LISTED NOT SHOWN

Item	Part Number	Qty	Description
1	AE-OPT-0091	1	LUBRICITY FILTER SYSTEM
2	FS20000	1	LUBRICITY REPLACEMENT ELEMENT
3	AE-OPT-0001	1	BACK UP ALARM
4	AE-OPT-0099	1	MASTER BATTERY DISCONNECT SWITCH
5	AE-OPT-0099A	1	MASTER BATTERY DISCONNECT SWITCH-LOCKOUT LEVER KIT
6	AE-OPT-0086	1	INTECOM JACK
7	AE-OPT-0094	1	12V ACCESSORY OUTLET

SCHEDULED MAINTENANCE

DAILY OPERATOR RESPONSIBILITES

Proper Fluid Checks

Engine Oil

Check engine oil with the unit on a level surface, the key in the "OFF" position, the shifter position in "PARK" and parking brake applied. Open side access door. Remove dipstick from crankcase, wipe it with a cloth. Insert it fully and take out it gently again. Check the oil level by the marks on the dipstick. The oil level must be between the "Max" level and the "Min" level. DO NOT OVERFILL! SEE PAGES 12 & 13 FOR SAFETY BULLETIN!

Coolant

DO NOT remove recovery tank cap or check coolant level while engine is hot! With engine cool, the key in the "OFF" position, the shifter position in "PARK" and the parking brake applied, open hood, set hood prop and look at left side of recovery tank. The reservoir tank is translucent, so the fluid is readily visible without removing the cap. Fluid level should be at the "Cold fill level".

Transmission Fluid

With unit in park and parking brake set in the "ON" position, start engine. Open side access door. Remove dipstick from transmission case, wipe it with a cloth. Insert it fully and take it out gently again. Check the fluid level by the marks on the dipstick. The transmission fluid level must be between the "Max" level and the "Min" level on the dipstick. DO NOT OVERFILL.

Brake Fluid

Check brake fluid with the unit on a level surface, the key in the "OFF" position, the shifter position in "PARK" and parking brake applied. Open hood, set hood prop and locate master cylinder reservoir. Remove spring clips and take off lid. Brake fluid level should be at the top of reservoir.

Power Steering Fluid

Check power steering fluid with key in "OFF" position, the shifter position in "PARK" and the parking brake applied. Open hood, set hood prop remove cap from power steering reservoir. Fluid level should be between the arrows on the indicator stick. DO NOT OVERFILL.

Recommended Filters:

Engine oil	Isuzu 8-94430-983-1	Fuel Filter	Isuzu 4JB1 8-94414-796-3
	Carquest 85390		Fleetgard FF5114
	Fleetgard LF3528		Isuzu 4JG1 897213-4720
			Wix 33128
Air Cleaner	Donaldson P549271 Or P14-8966		Carquest 86128
Lubricity Filter	Fleetgard FS20000	Transmission	Wix 58705

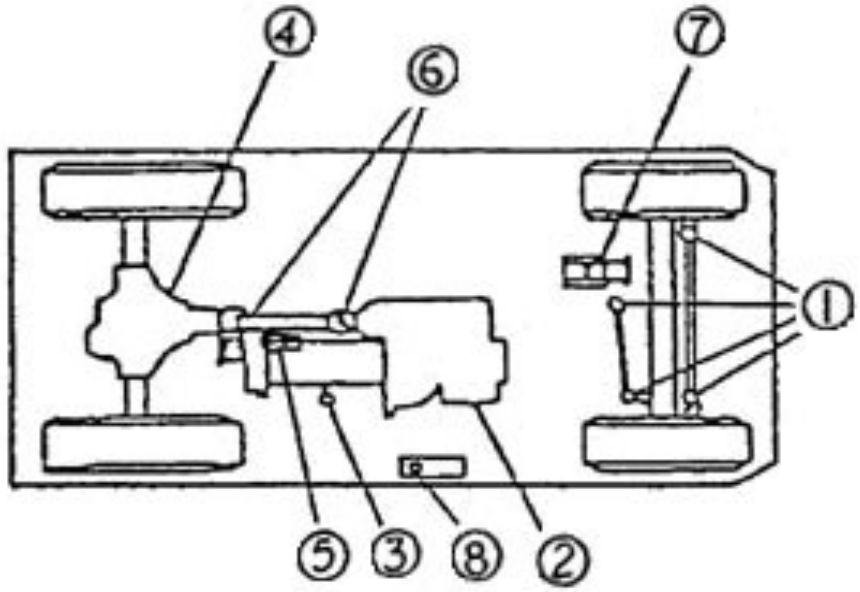
PREVENTATIVE MAINTENANCE SCHEDULE

No.	Description of Check/Service	Operational Hours								Completed
	X-Check * - Requires Service	Daily	50	100	250	500	750	1000	1500	
1	Engine Oil and filter ***first 50 hours and every 100 hours thereafter**	x	*	*						
2	Transmission Fluid ***every 500 hours**	x				*		*	*	
3	Power Steering Fluid	x								
4	Brake Fluid	x								
5	Coolant Level	x								
6	Fuel Filter ***every 500 hours**					*		*	*	
7	Drain Water/Fuel Filter ***every 250 hours**				*	*	*	*	*	
8	Lubricity Filter ***every 250 hours**				*	*	*	*	*	
9	Oil Leak Check	x								
10	Engine Rubber Mounts		x	x	x	x	x	x		
11	Inlet & Exhaust Pipes to Manifold		x	x	x	x	x	x		
12	Throttle Controls		x	x	x	x	x	x		
13	Coolant Hoses		x	x	x	x	x	x		
14	Belt Drives		x	x	x	x	x	x		
15	Fuel System Leak Check		x	x	x	x	x	x		
16	Electrical Wires and Connections		x	x	x	x	x	x		
17	Suspension U-Bolts		*							
18	Battery Cables			x						
19	Air Cleaner Element ***every 250 hours**				*	*	*	*	*	
20	Brake Pads (Front)					x		x		
21	Drum Brake Lining (Rear)					x		x		
22	Brake Lines and Hoses					x		x		
23	Flush Cooling System					*				
24	Clean Feed Pump Strainer								*	
25	Check Injection Nozzles					x		x	x	
26	Cylinder Compression Pressure							x		
27	Valve Clearance Check							x		
28	Position Crankcase Ventilation Valve Cleaning								x	
29	Rotate Tires ***every 500 hours**					*		*		
30	Axle Shaft U-Joint		*							
31	Spindle Nuts Re Torq to 20-30 FT LBS		*							

This section below has been added to for your record keeping convenience

Date Service Performed	
Tug Serial Number	
Tug Hours	
Technician	

LUBRICATION CHART—REAR WHEEL DRIVE

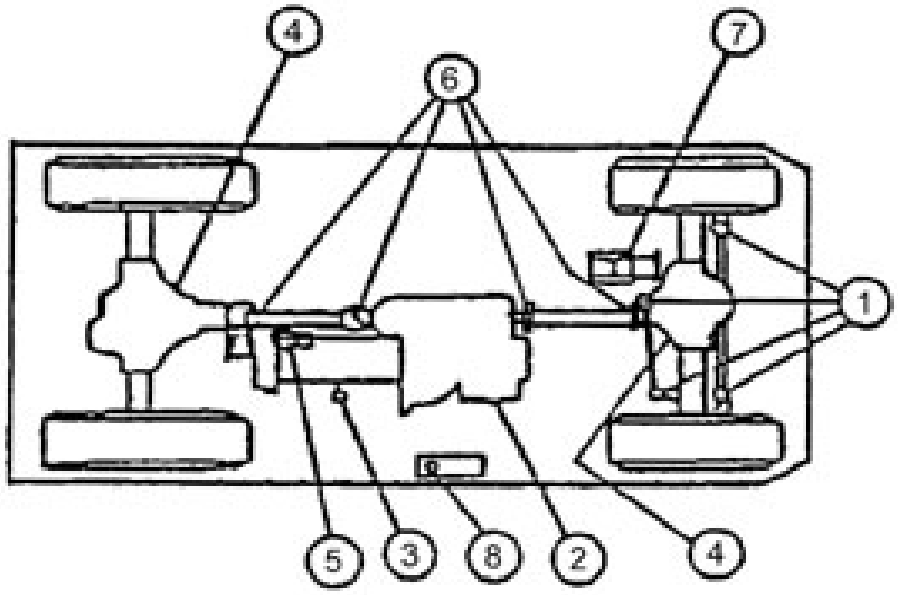


Item	Identification	Type Service	Lubricant
1	STEERING LINKAGE	LUBE	EP MULTIPURPOSE GREASE
2	TRANSMISSION OIL	CHECK	DEXTRON III TYPE TRANSMISSION FLUID
3	ENGINE OIL	CHANGE	15W40 CD OE/HDO (MIL-L-2104)
4	DRIVE AXLES	CHECK	80-90 GEAR OIL (MIL-L-2105)
	AXLE SHAFT U-JOINT	CHECK	EP MULTIPURPOSE GREASE
5	POWER STEERING PUMP	CHECK	AUTOMOTIVE POWER STEERING FLUID
6	DRIVE SHAFT	LUBE	EP MULTIPURPOSE GREASE
7	BRAKE MASTER CYLINDER	CHECK	DOT 3 BRAKE FLUID
8	ENGINE COOLANT*	CHECK	ETHYLENE GLYCOL/ WATER (50/50 MIX) MIL-A-46153
9	ACCELERATOR CABLE	LUBE	**SUMMER MONTHS WD40 PENETRATING OIL WINTER MONTHS ANTI FREEZE

*CHECK WHEN ENGINE IS AT OPERATING TEMPERATURE
**IT IS RECOMMENDED BY MANUFACTURER TO PROLONG THE LIFE OF YOUR ACCELERATOR CABLE THAT THE ABOVE LUBRICATION BE FOLLOWED

SEE PREVENTATIVE MAINTENANCE SCHEDULE

LUBRICATION CHART—TT SERIES-ALL WHEEL DRIVE



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4	DRIVE AXLES	CHECK	80-90 GEAR OIL (MIL-L-2105)
	AXLE SHAFT U-JOINT	CHECK	EP MULTIPURPOSE GREASE
5	POWER STEERING PUMP	CHECK	AUTOMOTIVE POWER STEERING FLUID
6	DRIVE SHAFT	LUBE	EP MULTIPURPOSE GREASE
7	BRAKE MASTER CYLINDER	CHECK	DOT 3 BRAKE FLUID
8	ENGINE COOLANT	CHECK	ETHYLENE GLYCOL/ WATER (50/50 MIX) MIL-A-46153
9	ACCELERATOR CABLE	LUBE	**SUMMER MONTHS WD40 PENETRATING OIL WINTER MONTHS ANTI FREEZE

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**IT IS RECOMMENDED BY MANUFACTURER TO PROLONG THE LIFE OF YOUR ACCELERATOR CABLE THAT THE ABOVE LUBRICATION BE FOLLOWED

SEE PREVENTATIVE MAINTENANCE SCHEDULE

SPECIFICATIONS & CAPACITIES

MODEL #	ISUZU 4JG1
DESCRIPTION:	Standard diesel, 2.8 Liter, Isuzu four cylinder, direct injection engine

# OF CYLINDERS	4 IN-LINE, 4 CYCLE
BORE & STROKE INCHES (mm)	3.66 X 4.01 (93 X 102)
DISPLACEMENT, CUBIC INCHES (L)	171 (2.8)
COMPRESSION RATIO	18.60
FUEL	#1 OR #2 DIESEL
ALTERNATOR	75 AMP, 12 VOLT, NEG GROUND
ENGINE WEIGHT FULLY DRESSED LB (KG) (PROX)	557 (253)

ENGINE CRANKCASE CAPACITIES

ENGINE	U.S. QUARTS	IMPERIAL QUARTS	LITRES
2.8 L (171 CID) DIESEL***	10.00	8.33	9.46
***15W40CD IN CONTINENTAL U.S.			

FUEL TANK REFILL CAPACITIES

U.S. GALLONS	IMPERIAL GALLONS	LITERS
18.0	15.0	68.0

SAE (SOCIETY OF AUTOMOTIVE ENGINEERS) NO. 2-D

JIS (JAPANESE INDUSTRIAL STANDARD) NO 2

DIN (DEUTSCHE INDUSTRIE NORMEN) 51601

BS (BRITISH STANDARD) CLASS A-1

*Please refer to Isuzu Engine Instruction Manual IDE– 6053 for further information

SPECIFICATIONS & CAPACITIES

TRANSMISSION REFILL CAPACITIES

ENGINE	U.S. PINTS	IMPERIAL PINTS	LITRES
2.8 L (171 CID) DIESEL	8.00	6.60	3.80
* USE DEXTRON III TYPE TRANSMISSION FLUID OR EQUIVALENT			
**ADD 9 PINTS, 7.5 IMPERIAL PINTS OR 4.25 LITERS IF TORQUE CONVERTOR HAS BEEN DRAINED			

ENGINE COOLING SYSTEM REFILL CAPACITIES

ENGINE	U.S. QUARTS	IMPERIAL QUARTS	LITRES
2.8 L (171 CID) DIESEL	16.00	13.30	15.10
* A 50/50 MIXTURE OF GLYCOL AND CLEAN WATER			

BRAKE SYSTEM

The brake system is power assisted hydraulic, front disc type and rear drum type. USE DOT 3 BRAKE FLUID.

STEERING SYSTEM

The steering system is power assisted hydrostatic type. Use TEXACO FLUID PART NO. 11872 OR EQUIVALENT SPEC FOR GM, CHRYSLER AND FORD AUTO APPLICATIONS

AXLE REFILL CAPACITIES

AXLE	U.S. PINTS	IMPERIAL PINTS	LITRES
FRONT STEER – NON DRIVE	N/A	N/A	N/A
FRONT DRIVE AXLE	5.20	4.37	2.48
REAR DRIVE AXLE	8.50	7.00	3.75
* SERVICE REFILL CAPACITIES ARE DETERMINED BY FILLING TO THE BOTTOM OF THE FILLER HOLE			
**USE 80W90 HYPOID GEAR LUBRICANT			

TIPS FOR INCREASED ALL WEATHER TRACTION DURING AIRCRAFT PUSHBACK

1.Reduce air pressure in pneumatic tires from 60 PSI to as low as 25 PSI. (**restore air pressure to 60 psi as soon as weather emergency ends).

2.When pushing with All Wheel Drive tractors, make sure the towbar is level or slightly downhill toward tractor.

3.When towing with Rear Wheel Drive-raise hitch height.

4.When pushing with Rear Wheel Drive-lower hitch height.

Note: These strategies(2, 3 and 4) maximize all weather traction.

5.When pushing aircraft on ice or icy snow with All Wheel Drive, a wheel may loose traction (wheel spin). To stop front wheel spin, apply some service brake gradually with left foot until wheel spin stops and hold, while continuing the pushback. Coordinate the left foot service brake pressure and the right foot accelerator, to maintain a smooth pushback. To stop rear wheel spin, apply parking brake with lever until it stops while continuing the pushback.

6.On ice or snow use chains or cables. If the use of chains is prohibited, there are traction cables that serve the same function as chains but are much easier to mount and are very kind in terms of abrasion to all surfaces.

7.Keep fuel tank full, as much as possible.

8.Consult with Eagle Tugs factory for additional assistance.

FRONT END ALIGNMENT PROCEDURE

Find center line of tire front and back

Check with tape measure to see difference

The front should be 1/16 inch more that the rear

1/16 inch toe out, if less or greater loosen the two bolts on the tie rod clamp

Turn clamp in or out to achieve desired setting—1/16 in toe out

Retighten two bolts on the tie rod clamp